



County Borough of Rochdale.

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# REPORT

ON

## The Health of Rochdale

AND

### The Medical Inspection of School Children

FOR

THE YEAR ENDING, 31st DECEMBER, 1912.

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A. C. ANDERSON, M.D., D.Sc., M.A., D.P.H.,

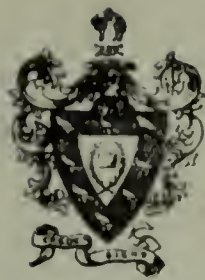
Sanitary Officer of Health and  
Chief School Medical Officer.

LONDON: 1913.

S. PEARCE, 11, Abchurch Lane, London, E.C. 4.

1913.





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Medical Officer of Health and  
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1913.



## Preface.

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*To the Chairman and Members of the Health Committee of the County Borough of Rochdale.*

GENTLEMEN,

I have the honour to submit for your consideration my Fourth Annual Report on the Health and Sanitary Conditions of this County Borough, with which is also incorporated the Report on the Medical Inspection of School Children.

This Report follows the form and arrangement of the three preceding Reports, but is less in volume. Many subjects which were considered to be of sufficient public health interest as to demand special consideration in the three previous reports, have been here omitted or discussed in less detail.

Further, it was intended in this Annual Report to present an exhaustive report on the Slaughter-houses of this Borough, with a general discussion on the whole question of Meat Supply and Meat Inspection. This Report is meantime deferred for further consideration.

The Report is divided into four Sections.

Section I. is chiefly statistical, and deals with the Marriage, Birth and Death-rates, and Infantile Mortality.

Section II. deals with Infectious Diseases, including Phthisis.

Section III. gives the details of the Departmental work under its respective divisions. This Section also contains an article on the Housing problem, treated from the point of view of Co-partnership and Co-operation.

Section IV. presents the Annual Report on the Medical Inspection of School Children, with its own Table of Contents. This Report shows good work and progress during the past year, and should be read thoughtfully by every one interested in this the most recent department of public health and preventive medicine.

In conclusion, it is again my pleasant duty to acknowledge the encouragement and support which this department receives from the Chairman and Members of the Health Committee.

Further, I wish to acknowledge the continued zeal and devotion to duty shown by all the Members of the Staff in the performance of their respective duties; and especially to those Members who, during the year, have willingly given much extra time and work in the Department.

I have the honour to be,

Gentlemen,

Your obedient Servant,



Medical Officer of Health and  
Chief School Medical Officer.

TOWN HALL,

ROCHDALE,

July 18th, 1913.





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COUNTY BOROUGH OF ROCHDALE.

Summary of Statistics,  
Year 1912.

AREA OF THE BOROUGH	...	...	...	...	...	...	...	...	acres 6,446
POPULATION (Est. 1912)—Males 43,165 ; Females 49,365	...	...	...	...	...	...	...	...	92,530
Census 1911.	DENSITY	...	...	...	...	...	...	...	persons per acre 14.35
	NUMBER OF BUILDINGS USED AS DWELLINGS (No. Inhabited)	...	...	...	...	...	...	...	22,845
	(a) ORDINARY DWELLING HOUSES	...	...	...	...	...	...	...	21,313
	(b) OTHER BUILDINGS (Shops, Hotels, Public Houses, &c.)	...	...	...	...	...	...	...	1,532
	AVERAGE NUMBER OF PERSONS PER INHABITED DWELLING—	...	...	...	...	...	...	...	
	(a) ORDINARY DWELLING HOUSES	...	...	...	...	...	...	...	3.95
	(b) ALL BUILDINGS (Including Shops, Hotels, Public Houses, &c.)	...	...	...	...	...	...	...	4.00
NO. OF MARRIAGES RECORDED IN THE REGISTRATION DISTRICT OF ROCHDALE	...	...	...	...	...	...	...	...	1,031
MARRIAGE-RATE PER 1,000 OF ESTIMATED POPULATION	...	...	...	...	...	...	...	...	7.94
BIRTHS REGISTERED—Males 924 ; Females 955	...	...	...	...	...	...	...	...	1,879
BIRTH-RATE PER 1,000 OF ESTIMATED POPULATION, YEAR 1912	...	...	...	...	...	...	...	...	20.3
"	"	"	"	"	Average 10 years, 1902-1911	...	...	...	23.1
DEATHS REGISTERED—Males 659 ; Females 725	...	...	...	...	...	...	...	...	1,384
DEATH-RATE (ALL CAUSES) PER 1,000 OF ESTIMATED POPULATION, 1912	...	...	...	...	...	...	...	...	15.0
"	"	"	"	"	AVERAGE 10 years, 1902-1911	...	...	...	16.8
SEVEN ZYMOTIC DISEASES—Death-rate per 1,000 of Population	...	...	...	...	...	...	...	...	1.05
RESPIRATORY DISEASES (Excluding Phthisis)—Death-rate per 1,000 of Population	...	...	...	...	...	...	...	...	2.77
PHTHISIS	...	...	...	...	...	"	"	"	1.10
OTHER TUBERCULOUS DISEASES	...	...	...	...	...	"	"	"	0.42
INFANTILE MORTALITY PER 1,000 BIRTHS REGISTERED, 1912...	...	...	...	...	...	...	...	...	111
"	"	"	"	"	Average 10 years 1902-1911	...	...	...	132

**SECTION I.****Vital Statistics.****POPULATION.**

The estimated population of the Borough of Rochdale to the middle of the year 1912 was 92,530 ; males 43,165, females 49,365, as compared with 91,645, the estimate for the year 1911. This estimated figure 92,530, is the one used by the Registrar General, and has been used throughout this Report for purposes of calculating the birth, death, and sickness rates.

The actual 1911 Census figures were—Persons 91,428 ; males 42,653, females 48,775.

**AREA.**

The Borough extends over an area of 6,446 acres, and the density is 14.35 persons per acre. The area and the number of persons per acre in the different Wards of the Borough is shown in the accompanying Table II.

**HOUSE BUILDING.**

The following Table, showing the number of houses erected in each Ward of the Borough during the past four years has been compiled from figures supplied by the Borough Surveyor.

**TABLE I.**

WARD	Houses Erected			
	1912	1911	1910	1909
CASTLETON EAST .....	38	28	19	98
CASTLETON SOUTH .....	10	17	32	43
CASTLETON NORTH .....	6	2	1	9
CASTLETON WEST .....	27	22	56	60
CASTLETON MOOR .....	30	61	48	51
SPOTLAND EAST .....	...	2	8	1
SPOTLAND WEST .....	32	19	44	36
WARDLEWORTH EAST .....	22	39	26	8
WARDLEWORTH WEST .....	6	11	21	33
WARDLEWORTH SOUTH .....	...	6	1	7
WUERDLE .....	44	27	8	25
THE BOROUGH.....	215	234	264	371

**MARRIAGES.**

The number of marriages recorded during the past year in the Rochdale Registration District which includes Rochdale Borough as well as the five surrounding districts of Norden, Littleborough, Milnrow, Wardle, and Whitworth, with an aggregate estimated population of 129,827 was 1,031, which is equal to a marriage rate of 7.9 per 1,000, as compared with 8.3 per 1,000 during 1911.

The marriages recorded in England and Wales during the same period were equal to a marriage-rate of 7.1 per 1,000 of population.

**BIRTHS.**

1,879 births have been registered during 1912 as belonging to Rochdale ; 1,860 of these occurred within the Borough, and the remaining 19 outside the Borough. Of the latter number, 18 occurred in Dearnley Workhouse, and in these cases the full address of the parent is supplied to us by the District Registrar. These 1,879 births may be classed as follows in comparison with the figures for the preceding year.

Year	Total No. of Births	Males	Females	Legitimate	Illegitimate	*No. of Inward Transfers
1912	1,879	924	955	1,810	69	19
1911	1,920	951	969	1,813	107	22

\* Births returned by Registrar General as having occurred outside the Borough, but belonging to Rochdale.

The birth-rate for 1912 is thus 20·3 per 1,000 of the estimated population ; this rate is 0·6 per 1,000 lower than the birth-rate of 1911 (20·9), 2·5 per 1,000 below the average rate for the five years 1907-1911 (22·8), and it is the lowest birth-rate on record in any year for Rochdale.

In the accompanying Table V., which shows the birth-rate in eleven of the large neighbouring manufacturing towns, the average birth-rate is 23·5 per 1,000, or 3·2 per 1,000 higher than the rate for Rochdale. Two of the towns—Halifax (18·0 per 1,000) and Huddersfield (18·8 per 1,000) had a birth-rate below that for this town during 1912.

For the 95 Great Towns of England and Wales, the birth-rate for the same period averaged 24·9 per 1,000, or 4·6 per 1,000 higher than Rochdale, and for England and Wales as a whole, 23·8 per 1,000, the lowest rate on record.

The birth-rate in the different quarters of the year 1911 and 1912 for Rochdale was as follows :—

Quarter ending	No. of Births Registered		Equivalent Annual Birth-rate per 1,000 of Population	
	*1912	1911	1912	1911
March 31st ...	508	487	22·1	21·3
June 30th ...	479	491	20·8	21·5
September 30th ...	455	472	19·6	20·4
December 31st ...	436	469	18·7	20·3

\* Excluding 1 birth returned by Registrar General for which there is no information.

The following Table II. shows the number of births and birth-rate for each Ward of the Borough for the past year. Six of the Wards have a birth-rate lower than that for the whole town. The Ward with the lowest rate was Castleton West, 17·1 per 1,000, and the highest rate was 25·4 per 1,000 in Wardleworth East.



TABLE II.

Chief Vital Statistics of each Ward of the Borough, 1912.

DISTRICT.	Popu- lation. (Est. to middle of 1912.)	Acre- age.	Density per Acre.	Births Regist'd	Deaths.					Infantile Mortality per 1000 Births Registered.	Rate per 1,000 of Est. Population.				
					Total.	Under one year of age.	From 7 Prin- cipal Zy- motic Dis- eases.	From Respi- ratory Dis- eases.	From Ph- thisis.		Births.	Deaths.	From 7 Prin- cipal Zy- motic Dis- eases.	From Respi- ratory Dis- eases.	From Ph- thisis.
THE BOROUGH ...	92530	6446	14'35	1879	1384	209	97	256	102	111	20'3	15'0	1'05	2'77	1'10
Castleton East Ward	11407	471	24'21	253	170	28	17	31	13	111	22'2	14'9	1'50	2'72	1'14
„ South „	11112	439	25'31	200	171	21	14	31	17	105	18'0	15'4	1'26	2'79	1'53
„ North „	4692	263	17'84	92	96	13	3	14	12	141	19'6	†20'5	0'64	2'98	†2'56
„ West „	9830	394	24'95	168	114	10	5	26	3	†60	†17'1	12'0	0'51	2'64	†0'31
„ Moor „	9500	2261	4'20	190	111	17	4	19	16	89	20'0	†11'7	†0'42	2'00	1'68
Spotland East ...	7254	676	10'73	129	97	15	7	12	8	116	17'8	13'4	0'96	†1'65	1'10
„ West ...	9056	746	12'14	199	131	15	10	17	8	75	22'0	14'5	1'10	1'88	0'88
Wardleworth East ...	6300	354	17'80	160	117	28	7	29	3	†175	†25'4	18'6	1'11	†4'60	0'48
„ West ...	7192	296	24'29	163	126	19	11	24	9	117	22'7	17'5	1'53	3'34	1'25
„ South	8865	117	75'77	188	136	29	14	27	6	154	21'2	15'3	†1'58	3'05	0'68
Wuerdle ... ..	7322	429	17'07	136	115	14	5	26	7	103	18'6	15'7	0'68	3'55	0'96
Return, Reg. Genl. ... (No information)	...	...	...	1	...	...	..	...	...	...	...	...	...	...	...

† Lowest.

‡ Highest.

DEATHS.

The deaths registered during 1912 as belonging to Rochdale reached a total of 1,384 ; males 659, females 725, and this number is made up as follows :—

Registered in the Borough ... ..	1,190
Deduct “ Non-Residents ” Registered in the Borough ... ..	22
	1,168
*Add “ Residents ” Registered outside the Borough ... ..	216
Nett Total ... ..	1,384

\* Including 166 deaths of Rochdale Residents in Dearnley Workhouse, and 50 deaths in other towns—chiefly in Nursing Homes, Hospitals and Asylums.

The death-rate from All Causes, which works out at 15 0 per 1,000 of population, is comparatively low, and only on one occasion (year 1910) has the same figure been reached. In the preceding year 1911 the death-rate was 15'3 per 1,000, and the average for the ten years 1902-1911 was 16'8 per 1,000.

According to the following summary the death-rate was highest during the first quarter of the year.

Quarter ending	No. of Deaths		Equivalent Annual Death-rate per 1,000 of Population	
	1912	1911	1912	1911
March 31st ...	429	409	18'6	18'0
June 30th ...	327	305	14'2	13'4
September 30th ...	296	349	12'7	15'1
December 31st ...	332	341	14'3	14'8

TABLE III.—Causes of, and Ages at Death during year 1912.

CAUSES OF DEATH.	NETT DEATHS at the subjoined ages of "Residents," whether occurring in or beyond the District.										WARDS OF THE BOROUGH										Total Deaths whether of "Residents," or "Non-Residents" in Institutions in the District																																										
	NETT DEATHS at the subjoined ages of "Residents," whether occurring in or beyond the District.										WARDS OF THE BOROUGH																																																				
	All Ages		Under 1 year		1-2		2-5		5-15		15-25		25-45		45-65		65 years and over		Castleton East	Castleton South		Castleton North	Castleton West	Castleton Moor	Spotland East	Spotland West	Wardlith East	Wardlith West	Wardlith South	Wuerdle																																	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																																													
ALL CAUSES { Certified { Uncertified																																659	725	107	102	31	27	25	32	22	25	26	37	91	99	202	165	155	238	170	171	96	114	111	97	131	117	126	136	115	74	...	
ENTERIC FEVER																																2	2	...	...	...	...	...	...	1	...	...	1	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	2
SMALL-POX																																...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MEASLES																																11	13	2	8	6	2	7	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SCARLET FEVER																																5	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WHOOPIING COUGH																																12	14	2	7	5	5	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DIPHTHERIA AND CROUP																																7	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
INFLUENZA																																5	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ERYSIPELAS																																2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PHthisis (Pulmonary Tuberculosis)																																46	56	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TUBERCULOUS MENINGITIS																																3	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTHER TUBERCULOUS DISEASES																																16	14	3	2	2	3	2	1	2	3	2	2	2	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CANCER, malignant disease																																35	42	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
RHEUMATIC FEVER																																1	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MENINGITIS																																4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ORGANIC HEART DISEASE																																57	79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BRONCHITIS																																64	72	9	8	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PNEUMONIA (all other forms)																																53	40	11	6	5	8	1	2	1	2	2	1	7	3	21	25	11	37	19	15	11	11	8	9	16	13	15	14	11	...	...	
OTHER DISEASES OF RESPIRATORY ORGANS																																16	11	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DIARRHOEA AND ENTERITIS																																11	15	9	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
APPENDICITIS AND TYPHLITIS																																5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CIRRHOsis OF LIVER																																3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ALCOHOLISM																																...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NEPHRITIS AND BRIGHTS DISEASE																																31	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PUERPERAL FEVER																																...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTHER ACCIDENTS AND DISEASES OF PREGNANCY AND PARTURITION																																...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CONGENITAL DEBILITY AND MALFORMATION INCL'G PREMATURE BIRTH																																47	37	46	37	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VIOLENT DEATHS, EXCLUDING SUICIDES																																21	13	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SUICIDES																																8	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTHER DEFINED DISEASES :—																																																															
General Diseases																																20	20	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Nervous System and of Organs of Special Sense																																73	89	11	9	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Circulatory System																																21	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Digestive System																																15	22	3	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Non-Veneal Disease of Genito-Urinary System and Annexa																																9	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Skin and of the Cellular Tissue																																3	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Bones and of the Organs of Locomotion																																3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Early Infancy																																2	1	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Old Age																																36	72	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases Ill-defined or Unknown																																12	12	2	3	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
YEARLY TOTAL																																659	725	107	102	31	27	25	32	22	25	26	37	91	99	202	165	155	238	170	171	96	114	111	97	131	117	126	136	115	74	...	
																																1384																															



### Ward Death-rates.

The accompanying Table II. shows the number of deaths and death-rate in each Ward of the Borough for 1912. Castleton North Ward is credited with the highest death-rate from All Causes, 20.5 per 1,000 of population, and this excess appears to be partly due to the high death-rate from Respiratory Diseases, chiefly the Phthisis group, which has a rate of 2.56 per 1,000 for this ward. Five other wards each had a death-rate higher than that recorded for the whole town. The lowest rate was 11.7 per 1,000 in Castleton Moor Ward.

### Classification of Causes of Death.

The causes of death set out in Table III. are classified according to the International List of Causes of death—a list which has been prepared by the Registrar General and recommended for use to all Medical Officers of Health throughout England and Wales. Accompanying this International List was a copy of a pamphlet which the Registrar General issued to Medical Men, containing a list of indefinite or undesirable terms which are used in making out death certificates. This pamphlet contains suggestions indicating how each term is objectionable and what further information as to the cause of death, is required in each case in order that each death may be referred to, and classified under its proper heading in the International List; and it is hoped that the medical men of this Registration district will endeavour to carry out these suggestions.

Table III. shows the deaths classified as to age and sex, and in the different Wards of the Borough.

### Chief Causes of Death.

The following summary shows the proportion in which certain causes of death have contributed to the death-roll, being the chief causes of death during the year.

Chief Cause of Death	No. of Deaths	Proportion per 100 deaths from All Causes	Equivalent Annual Death-rate per 1,000 of Population
Cerebral Hæmorrhage, and Apoplexy ...	87	6.3	0.94
Phthisis ... ..	102	7.4	1.10
Cancer ... ..	77	5.6	0.83
Organic Heart Disease ... ..	127	9.2	1.37
Bronchitis ... ..	136	9.8	1.47
Pneumonia (all forms) ... ..	93	6.7	1.01
Nephritis and Brights Disease ... ..	59	4.3	0.64
Premature Birth ... ..	41	3.0	0.44
Atrophy, Debility, and Marasmus... ..	35	2.5	0.38
Old Age ... ..	108	7.8	1.17

### Mortality at different Ages.

The percentage of deaths at each age period, for the years 1911 and 1912 is set out in the following summary.

Age Period	No. of Deaths		Percentage of Total Deaths	
	1912	1911	1912	1911
Under 1 year ... ..	209	268	15.1	19.1
1—2 years ... ..	58	64	4.2	4.6
2—5 „ ... ..	57	53	4.1	3.8
5—15 „ ... ..	47	55	3.4	3.9
15—25 „ ... ..	63	58	4.6	4.1
25—45 „ ... ..	190	182	13.7	13.0
45—65 „ ... ..	367	367	26.5	26.1
65 years and over ... ..	393	357	28.4	25.4

The following Table IV. shows the birth-rate, infantile death-rate, and the death-rate from All Causes during each of the past eleven years ; also the number of transferable deaths in each year. The figures in column 9 of this Table—Deaths of residents not registered in the district—refer to deaths in Dearnley Workhouse and in other towns, who were previously resident in the Borough.

TABLE IV.

Vital Statistics of Whole District during 1912 and previous years.

Local Government Board Return.

YEAR	Population estimated to Middle of each Year	BIRTHS			TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS ‡		NETT DEATHS BELONGING TO THE DISTRICT			
		Un-corrected Number	Nett		Number	•Rate	Of Non-residents registered in the District	Of Residents not registered in the District	Under 1 year of age		At all Ages	
			Number	•Rate					Number	Rate per 1,000 Nett Births	Number	•Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1902	84,112	...	2,045	24.3	1,396	16.6	9	118	260	127	1,505	17.9
1903	84,918	...	2,071	24.4	1,328	15.6	10	137	283	137	1,455	17.1
1904	85,732	...	1,950	22.7	1,381	16.1	12	148	295	151	1,517	17.7
1905	86,554	...	1,880	21.7	1,305	15.1	13	151	250	133	1,443	16.7
1906	87,335	...	2,058	23.6	1,379	15.8	15	167	284	139	1,531	17.5
1907	88,223	...	2,097	23.8	1,340	15.2	11	164	253	121	1,493	16.9
1908	89,068	...	2,202	24.7	1,482	16.6	13	163	371	168	1,632	18.3
1909	89,922	...	2,063	22.9	1,301	14.5	17	158	210	102	1,442	16.0
1910	90,785	...	1,981	21.8	1,219	13.4	21	163	204	103	1,361	15.0
1911	91,645	1,898	1,920	20.9	1,240	13.5	19	183	268	140	1,404	15.3
Averages for years 1902-1911	87,834	...	2,027	23.1	1,337	15.2	14	155	268	132	1,478	16.8
1912	92,530	1,860	1,879	20.3	1,190	12.9	22	216	209	111	1,384	15.0

\* Rates per 1,000 of Est. Population.

†“ Transferable deaths ” are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals, are not included in Columns 8 or 9, except in certain instances under 3 (b) below.

The following special cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) are regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement is referred to the district of fixed or usual residence of the parent

(3) Deaths from Violence are referred (a) to the district of residence, under the general rule ; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known ; (c) failing this, to the district where death occurred, if known ; and (d) failing this, to the district where the body was found.

Census 1911 :—Total population at all ages, 91,428. Number of inhabited houses, 22,845. Average number of persons per house, 4.0. Area of District in acres (land and inland water) 6,446.



### Comparison with Other Towns.

The figures in Table V. have been kindly supplied by the Medical Officer of Health of each of the neighbouring towns, and they afford an interesting comparison of the birth-rate, and the death-rate from All Causes, as well as certain important groups of diseases.

**TABLE V.—Mortality Rates in Neighbouring Towns during 1912.**

Town	Estimated Population	Birth-rate per 1,000 of Est. Pop.	Rates per 1,000 of Estimated Population.				
			Death-rate All Causes	Seven Zymotic Dis. (incl. Diarr. and Enteritis under 2 yrs.)	Pulmonary Tuberculosis	Other forms of Tuberculosis	Respiratory Diseases
Blackburn ... ..	133,539	20·4	14·4	1·0	0·81	0·24	2·96
Bolton ... ..	182,534	22·6	13·7	0·86	0·99	0·29	2·98
Burnley ... ..	108,012	23·0	15·0	1·17	0·85	0·43	3·3
Bury ... ..	59,106	20·81	14·18	0·86	1·30	0·44	2·47
Halifax ... ..	101,500	18·0	14·7	0·49	1·03	0·38	1·1
Huddersfield ... ..	109,512	18·84	13·81	0·85	0·82	0·37	2·23
Oldham ... ..	148,840	22·9	16·3	†	1·3	†	3·1
Stockport ... ..	110,781	22·75	15·10	0·86	1·29	0·47	3·37
St. Helens ... ..	98,159	31·96	15·49	1·76	0·92	0·66	†
Warrington ... ..	73,158	28·3	14·5	1·96	1·12	0·39	2·39
Wigan ... ..	90,504	28·59	17·74	1·36	1·07	0·66	4·09
<b>AVERAGE 11 TOWNS</b>	.....	23·47	14·99	*1·12	1·05	*0·43	*2·80
<b>ROCHDALE ... ..</b>	92,530	20·3	15·0	1·05	1·10	0·42	2·77

† No figures available.

\* Average 10 Towns only.

**TABLE VI.—Meteorology, 1912.**

MONTH	Mean Barometric Pressure (reduced).	Temperature.		Mean Humidity (Sat. 100)	Rain		Wind.	
		Mean	Daily Range		No. of days it fell.	Amount	Prevailing Directions	Velocity—Miles per hour
January ... ..	*30·071	§36·4	†7·2	‡94·1	21	S. & R. 5·080	S.W., N.E.	5·82
February ... ..	*29·974	*38·0	9·4	‡94·1	24	S. & R. 2·245	S.W., N.E.	5·63
March ... ..	*29·867	*39·9	9·9	88·7	‡29	S. & R. 6·145	S.W., N.E.	‡8·24
April ... ..	30·233	40·2	‡16·1	‡73·5	†9	S. & R. ‡1·440	S.W., N.E.	5·86
May ... ..	30·041	51·7	14·3	78·5	17	S. & R. 2·725	S.W., N.E.	3·40
June ... ..	29·821	56·0	13·0	79·5	27	5·690	S.W., N.E.	4·92
July ... ..	29·975	59·5	12·5	81·7	22	4·425	N.E., S.W.	5·96
August ... ..	29·753	54·3	11·5	84·3	27	‡7·230	S.W., N.E.	4·50
September ... ..	30·227	51·4	11·2	81·4	10	1·750	N.E., N.W.	6·10
October ... ..	29·922	45·9	14·7	91·6	16	5·325	S.W., N.E.	‡3·31
November ... ..	30·011	41·8	8·5	91·6	23	S. & R. 3·900	S.W., N.	6·40
December ... ..	29·517	42·1	10·3	92·6	28	S. & R. 5·885	S.W., N.E.	7·00
Yearly Average ... ..	...	...	11·6	86·0	Total 253	Total S. & R. 51·850	S.W., N.E.	5·60
Average for 5 years 1907-1911 ... ..	29·895	47·5	12·6	87·3	216	45·756	S.W., N.E.	5·82

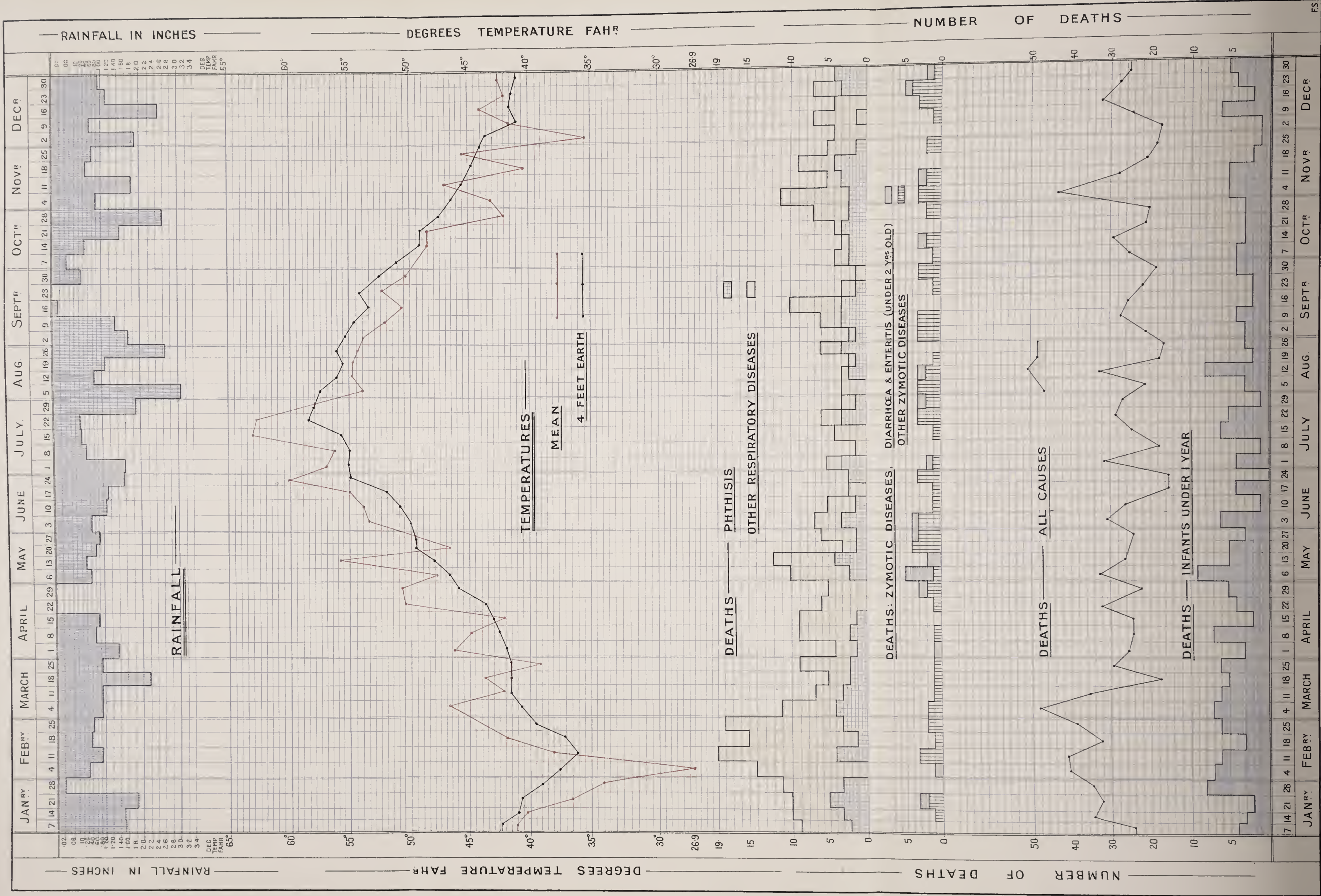
\* Average for 5 years 1907-1911. § Average for 4 years 1908-1911. † Lowest. ‡ Highest.  
S. & R. indicates Snow and Rain.





COUNTY BOROUGH OF ROCHDALE

GRAPHIC CHART A. WEEKLY NUMBER OF DEATHS & METEOROLOGY 1912.





## (Local Government Board Return, Table IV.)

\* Figures not available.





### Meteorology.

In Table VI. the meteorological readings recorded at Broadfield Park Observatory during the past year have been summarised and are stated as monthly averages in comparison with the Annual average for the past five years.

### Notes on Chart A.

Comparing this Chart with the corresponding Chart for 1911, we find that the death-rate from All Causes in 1912 was highest during the first week of March (48 deaths), whereas in the preceding year the highest death-rate was during the first week in September (41 deaths) ; whilst the lowest weekly mortality was during the last two weeks of June (15 deaths each) in 1912, and the third week in June (13 deaths) in 1911. This unusual high mortality in September of 1911 was almost entirely due to deaths from Summer Diarrhoea and Enteritis, a disease regarding which two factors have an important bearing—a high 4-ft. earth temperature and a low rainfall, and in this respect it may be interesting to compare the two years 1911 and 1912. Taking the year 1911 we find that the 4-ft. earth temperature reached its maximum during the third week in August with 62·7 degrees F., while the rainfall during that period was the lowest of the whole year ; and for the four weeks preceding was below the average, with the 4-ft. earth temperature ranging round about 60 degrees F. Following and corresponding to this high temperature and low rainfall, we had a heavy death-rate from Summer Diarrhoea and Enteritis. But in the present year the meteorological conditions differed greatly from those of the previous year 1911, and were accompanied with a very low mortality from diarrhoeal diseases ; the 4-ft. earth temperature made a gradual rise to 55 degrees F. the last week in June, and remained about that figure for four weeks, and then a quick rise to a maximum of 58·5 degrees F. (4·5 degrees F. lower than the maximum 1911). in the third week of July, about four weeks earlier than in 1911, and afterwards made a gradual and continuous decline, while the rainfall during the two weeks following this maximum reading was about the heaviest of the year and higher than any weekly rainfall of 1911.

The tracings of the weekly deaths from Respiratory Diseases, both in 1911 and 1912, show the heaviest death-rate from these diseases during the first three months of the year following the coldest weather, and especially is this well marked in the Chart of 1912 where the highest death-rate of the year is shown in the last three weeks of February following and corresponding to the cold spell of weather during the first week of February, with a mean temperature of 26·9 degrees F. the lowest weekly mean temperature for the whole year. In the preceding year the lowest was 33·5 degrees F. in the first week of February, and the highest was 67·5 degrees F. during the second week of August, as against 62·8 degrees F. in the third week of July. The year as a whole was cooler, and although the rainfall was less than in 1911, it was more general and evenly distributed throughout the year.

### INFANTILE MORTALITY.

209 deaths of infants under one year of age have been registered during the past year, or 59 less than in the year 1911 ; males 107, females 102. Of these numbers 187 were legitimate and 22 illegitimate ; and of the whole, 84 or 40 per cent. were insured, as against 138 or 51 per cent. in 1911.

In Table VII. the deaths have been classified according to cause, and represented under six groups of diseases, and also as to age and method of feeding, while the number of deaths at each age and from each cause during 1912 are compared with the averages for the preceding five years 1907-1911.

The chief causes of death and method of feeding adopted in each case may be summarised as follows :—

Cause of Death	No. of Deaths	Method of Feeding			No Food	Percentage of Total Deaths under one year of age	Proportion per 1,000 Births registered
		Breast	Breast and Bottle	Bottle			
Premature Birth ... ..	41	3	2	6	30	19.6	21.8
Marasmus, &c. ... ..	35	5	3	19	8	16.7	18.6
Bronchitis ... ..	17	7	2	8	...	8.1	9.0
Broncho-Pneumonia ... ..	16	3	6	7	...	7.7	8.5
Convulsions ... ..	20	2	4	11	3	9.6	10.6

These five causes are responsible for 129 or 61.7 per cent. of the total infant deaths.

Of the 209 infants who died during the year, 41 or 19.6 per cent. were breast-fed, 120 or 57.4 per cent. bottle-fed, while 48 or 23 per cent. were classed as "No food," having died chiefly during the first week of life before any system of feeding could be well established.

The infant death-rate calculated per 1,000 births registered (1,879) is 111 or 29 per 1,000 less than the rate for 1911 (140 per 1,000), and 21 per 1,000 less than the average rate for the preceding ten years 1902-1911 (132 per 1,000). This reduction in the infantile death-rate during 1912 is chiefly due to the almost entire absence of Summer Diarrhœa and Enteritis, which in the preceding year caused 80 or 29.9 per cent. of the infant deaths. For the past year the infantile death-rate was highest during the first quarter ending March, and lowest during the third or September quarter; while from the following comparative summary the infantile death-rate of 1911 was greatest during the September quarter. This, as mentioned above, was due to an epidemic of Summer Diarrhœa and Enteritis.

Quarter ending	No. of Births Registered		No. of Deaths of Infants under 1 year		Infant Death-rate per 1,000 Births	
	1912	1911	1912	1911	1912	1911
March 31st ... ..	508	487	66	58	130	119
June 30th ... ..	479	491	55	46	115	94
September 30th ... ..	455	472	44	104	97	220
December 31st ... ..	436	469	44	60	101	128

In Table II. is set out the infant death-rate for each Ward of the Borough, and there we find that Wardleworth East had the highest rate of 175 per 1,000 births. Four other Wards—Castleton North, Spotland East, Wardleworth West and South had each a higher rate than the rate recorded for the whole town. The lowest rate was 60 per 1,000 in Castleton West Ward.

#### Comparative Rates.

The following Table VIII. has been chiefly compiled from figures supplied by the various Medical Officers of Health, and shows the infantile death-rates for the neighbouring towns in comparison with Rochdale.

TABLE VIII.

Town	Infantile Death-rate per 1,000 Births Registered	
	1912	Average for 5 years 1907-1911
Blackburn ... ..	119	149
Bolton ... ..	96	139
Burnley ... ..	145	178
Bury ... ..	112	137
Halifax ... ..	81	102
Huddersfield ... ..	97	107
Oldham ... ..	117	141
Stockport ... ..	109	154
St. Helens ... ..	124	141
Warrington ... ..	92	128
Wigan ... ..	125	162
<b>AVERAGE 11 TOWNS</b> ... ..	111	140
<b>ROCHDALE</b> ... ..	111	132
England and Wales ... ..	95	116



TABLE I.—Morbidity and Mortality of Infectious Diseases during each year from 1895 to 1912 inclusive.

DISEASE		YEARS														ANNUAL AVERAGES		1912		
																10 YEARS	7 YEARS			
		1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910		1911	1895-1904
<b>Compulsorily Notifiable—</b>																				
SMALL-POX .....	No. of Sicknesses .....	7	2	...	...	...	2	1	24	114	3	2	4	1	...	...	...	...	1.0	...
	No. of Deaths .....	...	...	...	...	...	...	...	...	5	1	...	...	...	...	...	...	...	...	...
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	4.4	33.3	...	...	...	...	...	...	...	...	...
SCARLET FEVER .....	No. of Sicknesses .....	846	371	97	84	211	114	195	91	304	413	478	335	245	152	201	308	305	272.6	451
	No. of Deaths .....	45	24	7	3	9	2	7	2	11	14	22	13	4	7	10	8	10	12.4	9
	Per cent. of Deaths to Sickness .....	5.3	6.5	7.2	3.6	4.3	1.8	3.6	2.2	3.6	3.4	4.6	3.9	1.6	4.6	5.0	2.6	3.3	4.2	2.0
DIPHTHERIA .....	No. of Sicknesses .....	89	40	16	27	29	32	44	36	69	55	54	81	104	82	84	30	40	43.7	51
	No. of Deaths .....	27	9	7	4	13	7	16	9	21	18	26	20	22	19	13	9	3	13.0	10
	Per cent. of Deaths to Sickness .....	30.3	22.5	43.7	14.8	44.8	21.9	36.4	25.0	30.4	32.7	48.1	24.7	21.2	23.1	15.5	30.0	7.5	30.2	20.0
TYPHOID FEVER .....	No. of Sicknesses .....	42	55	29	77	35	30	51	37	31	22	34	23	16	23	18	17	6	19.6	13
	No. of Deaths .....	9	7	6	16	9	3	8	4	7	7	3	5	5	9	3	6	3	4.9	4
	Per cent. of Deaths to Sickness .....	21.4	12.7	20.7	20.8	25.7	10.0	15.7	10.8	22.6	31.8	8.8	21.7	31.3	39.0	16.7	35.3	50.0	29.0	30.8
TYPHUS FEVER .....	No. of Sicknesses .....	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No. of Deaths .....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Per cent. of Deaths to Sickness .....	100.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PUERPERAL FEVER.....	No. of Sicknesses .....	11	7	7	17	9	9	13	10	7	11	8	13	10	5	4	5	10	7.9	8
	No. of Deaths .....	5	4	4	7	3	3	6	3	3	2	5	5	6	1	1	4	5	4.9	4
	Per cent. of Deaths to Sickness .....	45.5	57.1	57.1	41.2	33.3	33.3	46.2	30.0	42.8	18.2	62.5	38.5	60.0	20.0	25.0	80.0	50.0	48.0	50.0
ERYSIPELAS .....	No. of Sicknesses .....	54	72	43	103	84	42	81	61	69	60	81	73	50	55	60	47	62	61.1	52
	No. of Deaths .....	5	4	...	2	2	2	5	...	3	1	2	6	...	1	2	...	1	1.7	2
	Per cent. of Deaths to Sickness .....	9.3	5.6	...	1.9	2.4	4.8	6.2	...	4.4	1.7	2.5	8.2	...	1.8	3.3	...	1.6	2.5	3.8
SACUTE POLIOMYELITIS...	No. of Sicknesses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No. of Deaths .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS .....	No. of Sicknesses .....	1050	547	192	314	368	229	385	259	594	564	657	529	426	317	367	407	423	446.6	576
	No. of Deaths .....	92	48	24	32	36	17	42	18	50	43	58	49	37	37	29	27	22	37.0	29
	Per cent. of Deaths to Sickness .....	8.8	8.8	12.5	10.2	9.7	7.4	10.9	6.9	8.4	7.6	8.8	9.3	8.7	11.7	7.9	6.6	5.2	8.3	5.0
<b>*Not Compulsorily Notifiable—</b>																				
MEASLES.....	No. of Sicknesses .....	...	...	...	...	345	577	46	478	72	459	72	224	60	80	101	157	878	225	1246
	No. of Deaths .....	35	43	68	13	24	34	5	71	4	42	1	50	24	66	17	4	31	27.6	29
WHOOPING COUGH .....	No. of Sicknesses .....	...	...	...	...	179	163	67	67	174	74	...	...	...	...	98	138	129	51	292
	No. of Deaths .....	19	52	18	2	19	34	20	13	42	36	13	19	27	25	6	17	17	17.7	26
CHICKEN POX .....	No. of Sicknesses .....	...	...	...	...	...	...	...	...	110	178	30	83	169	12	125	119	152	99	405
	No. of Deaths .....	2	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	0.3	...

\* As these diseases are not compulsorily notifiable the numbers here recorded are probably incomplete.

§ Compulsorily Notifiable from September 1st, 1912.

† Average 6 years.

‡ Average 2 years.

**SECTION II.****Infectious Disease.**

This Section of the Report deals with the notifications and returns of cases of infectious disease, and it is from these notifications that Tables III. and IV. have been compiled to show the age, seasonal and ward incidence. The diseases thus considered here are the Seven Chief Zymotics—Small-pox, Scarlet Fever, Diphtheria, "Fever" (which includes Enteric, Typhus and simple Continued Fever), Measles, Whooping Cough, and Diarrhœa and Enteritis (under two years); also Chicken Pox, Erysipelas, Puerperal Fever, Cerebro-Spinal Meningitis and Acute Poliomyelitis. Phthisis and other Tubercular diseases are also considered, while statistics relating to deaths from Influenza, Pneumonia and Bronchitis are set out in these Tables. A statement of the morbidity and mortality of infectious diseases during each year from 1895 to 1912 inclusive, is contained in Table I.

**(a) NOTIFIABLE INFECTIOUS DISEASE.**

The past year 1912 shows an increase in the number of cases of Infectious Disease which are Compulsorily notifiable, 576 cases being notified as compared with 423 in the year 1911, 407 in 1910, and 447 the average number of cases for the seven years 1905-1911. This increase is due chiefly to the increased incidence of Scarlet Fever.

The case mortality among these notifiable diseases was 5 per cent. as against 5·2 per cent. in 1911, and an average of 8·3 per cent. for the seven years preceding 1912.

**Small-pox.**

Rochdale has been free from this disease since the year 1907, when one case was notified, although during the past year 3 cases of suspected Small-pox were removed from within the Borough and quarantined at Marland Infectious Diseases Hospital, as it was considered advisable or necessary to place these cases under close observation and take all proper precautions. These cases, however, ultimately proved not to be Small-pox, and were afterwards discharged. According to the Report of the Local Government Board, 111 cases of Small-pox were reported in England and Wales during 1912.

By the kindness of R. A. Leach, Esq., Clerk to the Rochdale Union, we are again able to furnish the following particulars as to the vaccination of infants in the Rochdale Registration district for each of the ten years ending December 31st, 1911. Any children that may have been vaccinated after this return was made up, appear in this Table as unvaccinated.

**TABLE II.**

**Return relating to Vaccination of Infants during 10 years 1902-1911 for Rochdale Registration District.**

YEAR	No. of Births Registered	Died before Vaccination	No. Surviving	Successfully Vaccinated		Insusceptible to Vaccination		NOT VACCINATED Statutory Declaration of Conscientious Objection		REMAINDER OF SURVIVING CHILDREN					
				Number	Per-centage	Number	Per-centage	Number	Per-centage	Postponed by Medical Certificate		Removed to other Districts		Not otherwise accounted for	
										Number	Per-centage	Number	Per-centage	Number	Per-centage
1902	2838	277	2561	2051	80·1	3	0·1	323	12·6	36	1·4	122	4·8	26	1·0
1903	2869	303	2566	2006	78·2	1	...	428	16·7	38	1·5	86	3·3	7	0·3
1904	2738	267	2471	1959	79·3	4	0·2	399	16·1	29	1·2	77	3·1	3	0·1
1905	2634	265	2369	1811	76·4	2	0·1	436	18·4	47	2·0	68	2·9	5	0·2
1906	2787	286	2501	1846	73·8	2	0·1	561	22·4	34	1·4	52	2·1	6	0·2
1907	2778	252	2526	1674	66·3	2	0·1	708	28·0	40	1·6	88	3·5	14	0·6
1908	2957	290	2667	1252	46·9	6	0·2	1280	48·0	30	1·5	73	2·7	17	0·6
1909	2779	203	2576	987	38·3	6	0·2	1489	57·8	19	0·7	57	2·2	18	0·7
1910	2711	195	2516	905	36·0	...	...	1500	59·6	26	1·0	74	3·0	11	0·4
1911	2669	238	2431	841	34·6	4	0·2	1478	60·8	25	1·0	60	2·5	23	0·9

These figures show that although the number of births is decreasing and the number surviving correspondingly lower, the number of children not vaccinated by reason of statutory declaration under the Vaccination Act, 1907, has increased to 60·8 per cent., the highest figure yet recorded for Rochdale district.





### Scarlet Fever.

This disease shows a large increase during the past year and a greater incidence than any one year since 1905. The number of cases reported was 451, as against 305 during the year 1911, and an average of 289 cases for the seven years preceding 1912 (see Table I.).

Scarlet Fever has a marked tendency to assume an epidemic character at intervals of about seven years, and it is interesting to note that Table I. reveals this fact and shows three outstanding peaks at these intervals, in an imaginary curve, with the year 1912 as a peak.

The highest weekly incidence was during the second week in October, when 18 cases were reported, and during the whole of the month the number of cases was higher than any month of the year. The lowest month was January with 11 cases. (Table IV.)

The Wards of the Borough chiefly affected were Castleton South (90 cases), Castleton East (73), Castleton West (58), and Wardleworth South (44).

325 of the cases notified occurred among children attending school, and the schools chiefly affected in this respect were Lowerplace (35 cases), Spotland (31), Derby Street (29), Parish Church (26), and St. Mary's, Wardleworth (21 cases). As regards the house incidence, 326 houses had each one case, 52 had two cases, three had three cases, and three houses had four cases.

351 or 78 per cent. of the cases notified were removed to Marland Infectious Diseases Hospital for treatment. There were 9 deaths from this disease, or a case mortality of 2 per cent., as compared with 3·3 per cent. in 1911. The death-rate per 1,000 of population was 0·10, as against 0·06 per 1,000 for the 95 Great Towns of England and Wales.

### Diphtheria.

51 cases of this disease have been reported, or 11 more than the year 1911. The average for the seven years 1905-1911 was 68 cases. According to Table IV. the December quarter had the highest incidence with 19 cases. As regards the Wards of the Borough, Castleton Moor had the highest number of cases (10), and Spotland West next (9); Castleton North (1) and Wardleworth East Wards (1) the lowest. 24 of the cases notified were school children, and these were distributed in thirteen schools. 45 houses were infected with Diphtheria, and in only 4 of these did more than one case occur.

There were 10 deaths from this disease, or a case mortality of 20 per cent., as compared with an average of 24·3 per cent. during the seven years 1905-1911. The death-rate per 1,000 of population was 0·11, as against 0·13 per 1,000 for the 95 Great Towns of England and Wales.

### Diphtheria Anti-Toxin.

A supply of this Anti-toxin is still provided by the Sanitary Authority of this town free of charge to all medical men, for use within the Borough, and during the year 150 tubes of 2,000 units each were distributed for use both at the Hospital and at the different houses where the cases occurred. It may be again stated that a stock of this serum is always kept at the Public Health Office, the Infectious Diseases Hospital (Marland), and at the Borough Police (Central) Office, and may be obtained at almost any hour.

### Typhoid or Enteric Fever.

The number of cases of this disease reported during the past year was 13, or double the number reported during the preceding year. The average number of cases for the past seven years is 20. All the cases occurred in different houses, and the disease was well distributed in different parts of the town, with the exception of 4 cases, which were reported from Castleton West Ward.

Full enquiries were made into each case notified, as to the sanitary arrangements of the house, the milk, water and food supply; and also the possible source of infection was investigated. No serious sanitary defects were found, nor could the source of infection be satisfactorily traced. 7 of the 13 cases reported were removed to Marland Hospital for treatment.

The case mortality was 30·8 per cent. (4 deaths) as compared with 50 per cent. in 1911 (3 deaths).

The death-rate per 1,000 of population was 0·04 as against 0·03 in 1911. For the 95 Great Towns of England and Wales the death-rate was 0·04 per 1,000.



TABLE IV.

Progress of Infectious Disease during the year 1912, being Cases notified or discovered in each Month.

DISEASE	1912												
	January	February	March	April	May	June	July	August	September	October	November	December	Total for the Year.
<b>A.—Comp. Notifiable—</b>													
Small Pox ..... { Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... { Cases	11	23	17	33	43	46	55	36	48	60	43	36	451
{ Deaths	...	...	...	...	...	1	3	2	...	2	...	1	9
Diphtheria ..... { Cases	3	4	7	2	6	2	3	2	3	6	6	7	51
{ Deaths	...	...	1	...	...	2	...	...	2	1	2	2	10
†Typhoid Fever { Cases	1	3	...	2	1	...	1	1	1	...	3	...	13
{ Deaths	...	1	...	...	1	...	...	2	...	...	...	...	4
Typhus Fever ... { Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas..... { Cases	3	5	5	3	7	3	1	5	4	6	6	4	52
{ Deaths	...	...	1	...	...	...	1	...	...	...	...	...	2
Puerperal Fever { Cases	...	1	2	1	1	...	1	...	...	1	1	...	8
{ Deaths	...	...	2	1	...	...	1	...	...	...	...	...	4
Acute Poliomylitis.. { Cases	...	...	...	...	...	...	...	...	...	...	1	...	1
{ Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>B.—Not Comp. Notifiable—</b>													
Measles ..... { Cases	...	1	1	2	29	85	462	59	121	215	162	109	1246
{ Deaths	...	...	...	1	1	3	4	...	7	3	4	6	29
Whooping Cough { Cases	24	38	48	95	31	13	25	3	9	2	4	...	292
{ Deaths	3	5	4	1	9	2	1	1	...	...	...	...	26
Chicken Pox ... { Cases	31	11	12	10	67	52	45	4	18	72	63	20	405
{ Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal { Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis... { Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ..... { Cases	73	86	92	148	185	201	593	110	204	362	289	166	2519
{ Deaths	3	6	8	3	11	8	10	5	9	6	6	9	84
<b>Tuberculous Diseases—</b>													
Phthisis { Comp. Notifiable—													
(a) Poor Law Cases	4	5	4	2	1	4	1	4	5	4	7	3	44
(b) Hospital Cases	...	1	...	5	2	1	...	3	3	...	...	1	16
(c) ‡ Others Cases	27	15	19	12	18	7	11	9	5	10	5	9	147
Total ..... { Cases	31	21	23	19	21	12	12	16	13	14	12	13	207
{ Deaths	13	11	10	3	9	7	5	6	10	11	9	8	102
(d) Other Tubercular Diseases .....Deaths	4	...	3	1	7	5	1	3	2	5	3	5	39
Influenza .....Deaths	3	4	1	4	...	3	...	...	...	...	1	1	17
Pneumonia .....Deaths	11	20	7	7	7	7	5	7	7	3	8	4	93
Bronchitis .....Deaths	19	28	10	18	16	4	3	1	3	9	7	18	136

† Including Para-Typhoid Fever.

‡ Compulsorily Notifiable, January, 1912.



### Typhus Fever.

No cases of this disease have been reported in Rochdale since 1898. Only 31 cases have been notified in the whole of England and Wales as compared with 65 cases during 1911.

### Puerperal Fever.

8 cases were notified, or 2 less than during 1911. Unfortunately the patients in 4 of these cases died. The average number of cases for the preceding seven years was 8. The Castleton wards had 6 cases, and the Spotland wards 2. From enquiries made there did not appear to be any link of infection. The administrative procedure in these cases is reported on under Section III. of this Report, in part relating to the work under The Midwives Act.

### Erysipelas.

52 cases reported as against 62 in 1911. There were 2 deaths from this disease during the year.

### Acute Poliomyelitis and Cerebro-spinal Fever.

In virtue of powers under Section 130 of the Public Health Act, 1875, the Local Government Board issued an Order dated 15th August, 1912, requiring the notification of these diseases throughout England and Wales as and from 1st September, 1912; and up to the end of December of the past year 1 case of Acute Poliomyelitis was notified from Wardleworth West Ward. The patient, a child aged two years, made a good recovery.

### Comparative Incidence Rates of Notifiable Infectious Disease.

The following Table V. has been compiled from the returns of the Local Government Board, and shows the incidence of the various notifiable infectious diseases in the twelve large neighbouring manufacturing towns during 1912, in comparison with Rochdale. The rates in each case are calculated on the population as enumerated at the Census 1911.

TABLE V.

Incidence of Notifiable Infectious Diseases in 12 neighbouring towns during the year 1912.  
(Rate per 1,000 of population, 1911 Census.)

Town	Small-pox		Scarlet Fever		Diphth-theria		Typhoid Fever (incl. Continued F.)		Puerperal Fever		Erysipelas	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Bury ... ..	...	...	138	2.34	13	0.22	6	0.10	6	0.10	41	0.69
Blackburn ...	...	...	115	0.86	55	0.41	26	0.20	9	0.07	85	0.64
Bolton ... ..	...	...	311	1.72	92	0.51	48	0.27	3	0.02	109	0.60
Burnley ... ..	...	...	116	1.09	115	1.08	30	0.28	8	0.07	105	0.98
Halifax ... ..	...	...	179	1.76	79	0.78	32	0.32	1	0.01	46	0.45
Huddersfield 1	0.01	...	705	6.54	107	0.99	14	0.13	5	0.05	48	0.45
Oldham ... ..	...	...	361	2.45	48	0.33	18	0.12	10	0.07	99	0.67
Preston ... ..	...	...	591	5.05	237	2.02	47	0.40	2	0.02	51	0.44
Stockport ...	...	...	209	1.92	90	0.83	29	0.27	6	0.06	42	0.39
St. Helens ...	...	...	833	8.63	135	1.40	48	0.50	3	0.03	93	0.96
Wigan ... ..	...	...	140	1.57	38	0.43	73	0.82	4	0.04	46	0.52
Warrington ...	...	...	144	2.00	108	1.50	31	0.43	12	0.17	61	0.85
Average— 12 Towns	...	...	320	2.99	93	0.88	34	0.32	6	0.06	69	0.64
ROCHDALE	...	...	450	4.92	50	0.55	13	0.14	8	0.09	51	0.56

Compared with the twelve neighbouring towns the incidence rate in Rochdale during the past year is in excess of the average in Scarlet Fever and Puerperal Fever groups, but in Diphtheria, Typhoid Fever and Erysipelas, we are below the average.

## (b) NON-NOTIFIABLE INFECTIOUS DISEASES.

The three infectious diseases included under this heading are Measles, Whooping Cough and Chicken-pox, and these are chiefly notified from the various elementary schools. No less than 1,943 cases have been notified under these headings, as against 1,159 cases during the previous year.

**Measles.**

1,246 cases of this disease were reported, as compared with 878 cases in 1911. At the beginning of the year the Borough was comparatively free from Measles, for only 2 cases were reported from the schools during the first quarter, but this number gradually increased until early in the month of July the disease appeared to assume an epidemic form. During this month alone 462 cases were reported. The later months were not quite so severe, although an average of over 130 cases per month were recorded. This epidemic, however, gradually declined.

Several of the Elementary Schools (Infants Department) were closed for purposes of disinfection on account of the prevalence of this disease. Fuller information regarding this epidemic is given in the School Section of this Report.

The deaths from Measles numbered 29, equal to a death-rate of 0·31 per 1,000 of population, as against 0·34 during 1911. For the 95 Great Towns of England Wales the death-rate averaged 0·47 per 1,000 for the year 1912.

After cases of Measles all houses are disinfected by the Health Department where application is made by the medical man or householder.

**Whooping Cough.**

This disease shows an increase during 1912, 292 cases being reported, as compared with 129 cases during the preceding year. 26 deaths were reported, a death-rate per 1,000 of 0·28, which is an increase of 0·09 per 1,000 over the rate for 1911. The death-rate from Whooping Cough for the 95 Great Towns of England and Wales during 1912 was 0·26 per 1,000.

**Chicken-pox.**

The cases of this disease reported during 1912 numbered 405, an increase of 253 when compared with the figures for 1911. There have been no deaths from Chicken-pox reported in Rochdale since 1905.

**Diarrhoea and Enteritis or Summer Diarrhoea.**

The only information we have under this heading is from the weekly death returns. In accordance with a change in classification by the Registrar General, all deaths from these diseases at ages under two years are now included as one of the seven principal zymotic diseases. These diarrhoeal diseases are largely influenced by and vary according to seasonal conditions. The past summer being on the whole wet and cold, the disease in no way approached epidemic form as in the previous year. The deaths at all ages numbered 26, as follows :—

	AGES		
	Under 1 year	1 to 2 years	Over 2 years
Diarrhoea and Infective Enteritis ...	9	1	4
Enteritis (non-infective) ...	9	...	3
TOTAL ...	18	1	7



During the previous year 1911, when a severe epidemic of these diseases was present in this Borough, especially during the months of August and September, 82 deaths were registered as due to such causes as Diarrhœa and Enteritis, and for the whole of the year no less than 100 deaths—88 under two years and 12 over two years of age—were registered. In the preceding two years 1909-1910, the Borough was comparatively free from these diseases.

The death-rate from Diarrhœa and Enteritis (under two years age) in Rochdale during the past year was 0·21 per 1,000, as compared with 0·96 per 1,000 during 1911. For the whole of England and Wales this rate averaged 8·53 per 1,000, and for the 95 Great Towns of England and Wales 10·88 per 1,000.

#### Administrative Procedure.

In the case of those diseases which are dealt with under the heading "Compulsorily Notifiable Diseases" the following procedure is usually adopted:—

- (1) VISITING AND INSPECTION.—On receipt of a notification from the medical man, the house where the disease exists is visited by the Sanitary Inspector. Enquiries are made as to means of isolation, water, milk and other food supplies bearing on the disease, school attendance, &c., and a general inspection is made of the house and sanitary arrangements. Printed and verbal instructions are given regarding isolation and disinfection.
- (2) DISINFECTION.—In all cases of infectious disease, after removal to Hospital or the termination of the case, the premises are fumigated with either Formalin or sulphur gas, chiefly the former. The clothing and bedding which has been in contact with the patient is removed and disinfected by means of a Washington Lyons Steam Disinfector. Disinfectants are supplied free to each house. In the case of Typhoid Fever at a house having a pail closet as sanitary convenience, a special pail, with cover is supplied for the purpose of receiving all excrementitious matter from the patient. The pail is removed to the Destructor Works three times per week, the contents destroyed, and the pail thoroughly disinfected.
- (3) As a further preventative measure against the spread of infectious disease in the elementary and other schools, a complete system of daily notification between the Public Health Department and the Head Teacher, as to exclusion and re-admittance of scholars, is now in operation.

#### Mortality from Zymotic Diseases.

The death-rate from the seven diseases classed to this heading was below the average, being 1·06 per 1,000 as against an average annual rate for the preceding ten years of 1·45 per 1,000. The death-rate in 1911 was 1·66 per 1,000. According to Table VI. Scarlet Fever was the only disease of the seven which exceeded the average; while the diseases with the highest death-rate were Measles, Whooping Cough and Diarrhœa.

TABLE VI.  
SEVEN PRINCIPAL ZYMOTIC DISEASES.

Death-rates per 1,000 Estimated Population during Ten Years 1902-1911 and 1912.

DISEASE.	YEARS.										Average Annual Rate 10 years 1902-1911	Rate Year 1912
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911		
SMALL-POX .....	...	‡0·06	‡0·01	...	...	...	...	...	...	...	...	...
MEASLES .....	‡0·84	0·05	0·49	‡0·01	0·57	0·27	0·74	0·19	0·04	0·34	0·35	0·31
SCARLET FEVER .....	‡0·02	0·13	0·16	‡0·25	0·15	0·05	0·08	0·11	0·09	0·11	0·12	0·10
WHOOPIING COUGH ...	0·15	‡0·49	0·42	0·15	0·22	0·31	0·28	‡0·07	0·19	0·19	0·25	0·28
*FEVER { Typhoid Typhus Continued }	0·06	0·08	‡0·14	0·06	0·09	0·06	0·10	‡0·03	0·07	0·03	0·07	0·04
DIARRHŒA .....	0·21	0·32	0·63	0·52	0·58	0·11	‡0·98	‡0·09	0·28	§0·96	0·47	§0·21
DIPHTHERIA .....	0·11	0·25	0·21	‡0·30	0·23	0·25	0·21	0·14	‡0·10	0·03	0·18	0·11
TOTAL ZYMOTICS .....	1·40	1·38	2·06	1·29	1·84	1·04	‡2·39	‡0·63	0·76	1·66	1·45	1·06

‡ Highest.

† Lowest.

§ Diarrhœa and Enteritis (under 2 years).

\* Chiefly Typhoid, and including Para-Typhoid Fever.  
No deaths from Typhus Fever since 1898.

INFECTIOUS DISEASES HOSPITAL.

The Hospital at Marland now serves a population of over 150,000, and admits cases from the Boroughs of Heywood and Middleton as well as from Rochdale Borough and the Cottage Homes at Dearnley.

Cases Treated.

The following Table VII. shows the ages and the average stay in Hospital of the different cases treated.

The past year has been a record as regards the number of cases admitted, 423 as against an average of 260 cases. In the preceding year the number was 264, and the next highest to 1912 was 389 cases in 1904.

Of the 423 cases admitted 24 were from Middleton, 9 from Heywood, and 390 from Rochdale ; and by referring to Table III. may be seen the Wards from which the latter number was removed.

TABLE VII.  
ROCHDALE INFECTIOUS DISEASES HOSPITAL.  
Return of Patients for year ending 31st December, 1912. Marland Hospital.

DISEASE	In Hospital on 31st December 1911	Admitted during the Year	Discharged	Died	Remain- ing in Hospital at end of Year	Average stay in Hospital of Patients Disch'rg'd — Days	Ages of Patients Admitted		
							Under 5 Years	5—15 Years	Above 15 Years
SMALL-POX .....	...	...	...	...	...	...	...	...	...
MEASLES.....	...	...	...	...	...	...	...	...	...
SCARLET FEVER .....	26	375	345	9	47	43	97	245	33
DIPHTHERIA .....	1	32	30	2	1	32	8	20	4
TYPHOID FEVER .....	...	13	7	5	1	41	...	3	10
TYPHUS FEVER .....	...	...	...	...	...	...	...	...	...
ERYSIPELAS .....	...	...	...	...	...	...	...	...	...
WHOOPING COUGH .....	...	...	...	...	...	...	...	...	...
PUERPERAL FEVER.....	...	...	...	...	...	...	...	...	...
Epid. Cerebro-Spinal Menin- gitis .....	...	...	...	...	...	...	...	...	...
Total Zymotic Cases .....	27	420	382	16	49	...	105	268	47
In Quarantine .....	...	3	3	...	...	18	...	1	2
TOTAL .....	27	423	385	16	49	...	105	269	49

Average daily number of patients in Hospital 49, of whom 22 were males and 27 females. Number of cases admitted from outside Borough (from Middleton 24, and Heywood 9) was 33, and the number of deaths among such cases was 4. Maximum daily number of patients in Hospital 71, on 18th October and 8th November. Minimum daily number of patients in Hospital 18, on 7th and 10th February.

The subjoined Table VIIA. gives the number of cases treated at the Hospital each year since 1901, and shows the case mortality during the past year to be 3·8 per cent., or about one half the average case mortality for the preceding ten years, although the number of cases admitted during 1912 was almost double the average.



TABLE VIIa.

Number of cases treated at Marland Hospital during 11 years 1902-1912.

Disease	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	Average 10 years 1902-11	1912
SMALL-POX ...	31	143	6	16	17	1	1	1	...	6	22	...
SCARLET FEVER ...	71	102	361	309	255	154	124	146	250	227	200	375
DIPHTHERIA ...	2	...	14	5	24	54	43	43	21	23	23	32
TYPHOID FEVER ...	14	9	7	17	14	9	20	16	13	4	12	13
OTHER DISEASES ...	...	7	1	1	2	3	2	6	...	4	3	3
TOTAL CASES ...	118	261	389	348	312	221	190	212	284	264	260	423
NO. OF DEATHS ...	7	18	18	16	21	22	22	19	15	8	17	16
Case Mortality per cent.	5.9	6.9	4.6	4.6	6.7	10.0	11.6	9.0	5.3	3.0	6.5	3.8

**Hospital Expenditure.**

The following abstract has been prepared from the Borough Treasurer's Statement of Accounts:

Items	Financial Year ending					
	March, 1913			March, 1912		
	£	s.	d.	£	s.	d.
Wages of Staff ...	575	2	1	496	16	10
Rates, Taxes, Insurance, &c. ...	117	18	10	97	2	3
Gas, Water, Coal and Coke, etc. ...	344	17	3	284	7	1
Provisions and Drugs, &c. ...	855	2	6	656	3	10
Horse Hire for Ambulance ...	84	5	6	37	12	0
General Repairs and Alterations ...	86	12	9	147	6	1
Establishment Requisites, &c. ...	163	7	7	100	7	0
Interest on Mortgage Loans ...	92	3	0	92	14	7
Sinking Fund Proportion ...	8	3	7	8	3	7
Yearly Total ... Gross	£2327	13	1	£1920	13	3

Table showing Average cost per Person (incl. staff) per day for Provisions and Drugs.

Financial Year ending	Expenditure on Provisions and Drugs			Average Daily Expenditure on Provisions and Drugs			Average Daily Number of Patients and Staff		Average Cost per Person per day for Provisions and Drugs
	£	s.	d.	£	s.	d.	P.	S.	
MARCH 31ST, 1912 ... (Patients admitted 224)	656	3	10	1	15	10	26 } 18 }	44	9 $\frac{3}{4}$ d.
MARCH 31ST, 1913 ... (Patients admitted 473)	855	2	6	2	6	10 $\frac{1}{4}$	46 } 19 }	65	8 $\frac{5}{8}$ d.

# Tuberculosis.

## Notification of Phthisis.

During the three years 1909-1911 only Poor Law and Hospital cases of Phthisis or Pulmonary Tuberculosis have been compulsorily notifiable, but commencing on 1st January, 1912, all cases of this disease were compulsorily notifiable in England and Wales through the Public Health (Tuberculosis) Regulations, 1911.

For the whole year 207 cases have been notified, as against 109 cases during 1911. The notifications are from different sources according to the following summary :—

Source of Notification	1912	1911	1910	1909
1.—COMPULSORY NOTIFICATIONS—				
(a) Public Health (Tuberculosis) Regulations, 1908				
*Form A. ... ..	66	69	54	87
†Form B. ... ..	18	15	27	43
Total ... ..	84	84	81	130
Less Duplicate Notifications ... ..	40	36	22	34
Actual Cases ... ..	44	48	59	96
(b) § Public Health (Tuberculosis in Hospital) Regulations, 1911 ... ..	43	41	...	...
Less Duplicate Notifications ... ..	27	15	...	...
Actual Cases ... ..	16	26	...	...
(c)    Public Health (Tuberculosis) Regulation, 1911	163	...	...	...
Less Duplicate Notifications ... ..	16	...	...	...
Actual Cases ... ..	147	...	...	...
2.—VOLUNTARY NOTIFICATIONS ... ..	...	35	20	13
Total Cases notified during the year ... ..	207	109	79	109

\* Notifications by Medical Officers of Poor Law Institutions.

† Notifications by Poor Law District Medical Officers.

§ Compulsory Notifiable since May 1st, 1911.

|| Compulsory Notifiable since January 1st, 1912.

Under Form C. of the Regulations of 1908, 34 notifications were received from the Workhouse Superintendent regarding persons suffering from Phthisis leaving the Workhouse and returning to the Borough, many of them only for temporary residence. Every effort was made to follow up these cases, but some difficulty was experienced in doing so.

These notifications of Phthisis have been tabulated in Tables III. and IV. to show the seasonal, age and ward incidence. Castleton South and Castleton Moor Wards had the highest number of cases (25 each), and Wardleworth West came next (24 cases) ; the lowest number was 12 cases in Castleton West Ward. Table IV. shows 75 cases reported during the first quarter of the year, a higher incidence than any other quarter, but as January 1st was the date on which the new Regulations as to compulsorily notification came into operation, it is probable that many of this number were old cases.

## Investigation of cases notified.

During the year the Lady Health Visitors or Sanitary Inspectors have continued their investigations into cases notified and cases of death from Phthisis. The conditions and circumstances of each case, where possible, have been carefully noted, and from data thus collected Tables VIII. and X. have been compiled. The administrative procedure and preventive measures for the control of Phthisis in this Borough, as set out in the following pages, have been carried out as far as possible in each case.

TABLE VIII.

PHTHISIS.—Particulars of Cases notified during the year 1912.

SIZE OF HOUSE No. OF ROOMS	No. of Notifica- tions		AGES						TYPE OF HOUSE				Average Rent	PARTICULARS REGARDING HOUSE												Treatment				Occupa- ation				Means of Family or Patient				Habits		Sleeping Accommo- dation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Male	Female	Under 5 yrs.	5-15 yrs.	15-25 yrs.	25-45 yrs.	45-65 yrs.	65 yrs. & over	Back-to-Back	Through	No back door or windows	Not Through at back	No. Damp.	Clean	Fairly Clean	Dirty	Light		Sunshine		Means of Ventilation				Hospital	At Home	Both	Outdoor	Indoor	Good	Fair	Poor	Cases having Poor Law Relief	Good	Indifferent	Separate Bedroom	Separate Bed	Joint Bedroom																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

\* No complete information regarding these cases.



In order that the different headings in Table VIII. and X. may have some comparison, the figures from the corresponding Tables of 1910 and 1911 have been included. As regards 34 of the 207 cases notified, 28 were cases in Common Lodging-houses in the town, and 6 in a Public Institution; and on account of the migratory nature of many of these no complete information as regards family history and other circumstances could be ascertained. In a perusal of Table VIII. one observes (a) that about one-third of the cases regarding which information is available occurred in damp houses, and that the means of ventilation in about the same number of houses was not used to the extent desirable; (b) that over two-thirds of the cases were classed as possessing poor means; (c) that in over two-thirds of the cases investigated the patient occupied a joint bedroom, and of these over three-fourths occupied a joint bed; only about one in every three of the cases was able to have a separate bedroom. Table X.—Particulars of Phthisis deaths—includes many of the cases shown in Table VIII.—(notifications), and are again included here owing to the fact that the conditions at time of death are in a number of cases entirely changed. The figures bring out similar features as in Table VIII. In Table X. it will be noted, that, although Phthisis Pulmonalis became compulsorily notifiable on 1st January, 1912, yet there were 23 deaths registered during the year as due to this disease, and in none of these cases was any previous notification received before death.

#### Occupation.

Table IX. gives the occupation of each case notified and of the death cases.

TABLE IX.

PHTHISIS 1912.—Particulars of Occupation of cases notified, and proportion of Deaths of cases notified to cases un-notified.

OCCUPATION	CASES NOTIFIED							DEATHS				Total Deaths Registered	
	Poor Law and Hospital Cases		Other Cases		Total			Of Cases Notified		Of Cases Not notified			
	M.	F.	M.	F.	M.	F.	Total	M.	F.	M.	F.	M.	F.
Cotton Operatives.....	3	13	18	38	21	51	72	9	25	...	4	9	29
Woollen do. ....	...	...	2	1	2	1	3	1	1	...	...	1	1
Housework .....	...	3	...	20	...	23	23	...	7	...	4	...	11
School Children .....	2	2	14	12	16	14	30	...	3	...	...	...	3
School Teachers.....	...	...	...	2	...	2	2	...	1	...	...	...	1
Labourers .....	3	...	13	...	16	...	16	10	...	4	...	14	...
Iron Workers.....	3	...	5	...	8	...	8	5	...	...	...	5	...
Joiners .....	1	...	2	...	3	...	3	3	...	1	...	4	...
Coal Merchant .....	...	...	...	...	...	...	...	...	...	1	...	1	...
Auctioneer .....	...	...	1	...	1	...	1	1	...	...	...	1	...
Hairdresser.....	...	...	1	...	1	...	1	1	...	...	...	1	...
Bricklayer .....	1	...	...	...	1	...	1	...	...	...	...	...	...
Butcher .....	...	...	1	...	1	...	1	1	...	...	...	1	...
Book-keepers .....	1	...	1	...	2	...	2	...	...	1	...	1	...
Drainers .....	...	...	3	...	3	...	3	...	...	...	...	...	...
Charing .....	...	...	...	3	...	3	3	...	2	...	...	...	2
General Hawkers .....	1	1	...	...	1	1	2	...	1	1	...	1	1
Lodging Housekeeper .....	...	...	...	...	...	...	...	...	...	1	...	1	...
Organ Grinder .....	...	...	1	...	1	...	1	...	...	...	...	...	...
Shopkeeper .....	...	1	1	...	1	1	2	...	1	...	...	...	1
Stone Mason .....	...	...	2	...	2	...	2	...	...	...	...	...	...
Insurance Agents .....	...	...	3	...	3	...	3	...	...	...	...	...	...
Tailor .....	1	...	...	...	1	...	1	1	...	...	...	1	...
Traveller .....	...	...	...	...	...	...	...	1	...	...	...	1	...
Umbrella Maker .....	...	...	...	...	...	...	...	...	1	...	...	...	1
Police Constable .....	...	...	1	...	1	...	1	...	...	...	...	...	...
No Occupation .....	...	...	2	...	2	...	2	...	...	1	5	1	5
TOTALS .....	16	20	71	76	87	96	183	33	42	10	13	43	55
Cases which cannot be traced— Chiefly from Common Lodging Houses .....	20	4	...	...	20	4	24	3	1	...	...	3	1
TOTALS .....	36	24	71	76	107	100	207	36	43	10	13	46	56

## TABLE X.

### Distribution of Phthisis Deaths during Year 1912.

[illegible]



### Mortality from Phthisis.

The deaths registered during 1912 as due to this disease numbered 102 (males 46, females 56) ; as against 93 deaths in the previous year. The death-rate was 1.10 per 1,000 of the estimated population, an increase of 0.20 per 1,000 over the rate for 1911 (0.99 per 1,000). But when compared with the average annual death-rate from this disease during the ten years 1902-1911 (1.24 per 1,000) the rate for the year 1912 shows a decrease of 0.14 per 1,000. For the past half-century the death-rate from Phthisis in Rochdale is shown in the following Table :—

Death-rate from Phthisis in Rochdale.

Period	Average Annual Number of Deaths	Average Death-rate per 1,000 of Estimated Population
1856—1865	128	3.43
1866—1875	164	3.18
1876—1885	158	2.21
1886—1895	130	1.82
1896—1905	115	1.45
1906—1910	108	1.21
1911	91	0.99
1912	102	1.10

Table II. shows the number of deaths and death-rate per 1,000 from Phthisis in each Ward of the Borough. The lowest ward death-rate is Castleton West 0.31 per 1,000, Wardleworth East is next with 0.48 per 1,000, and three other wards have a death-rate lower than the rate for the whole Borough. Castleton North Ward had the highest death-rate from this cause 2.56 per 1,000.

In the eleven large neighbouring towns, as shown in Table V. of Section I., the death-rate from this disease is on the average about the same as Rochdale. These rates range from 0.81 per 1,000 (Blackburn) to 1.30 per 1,000 (Oldham and Bury), with an average for the eleven towns of 1.05 per 1,000.

### Other Forms of Tuberculosis.

The Public Health (Tuberculosis) Regulations of 1912 makes non-pulmonary as well as pulmonary tuberculosis compulsorily notifiable throughout England and Wales. These Regulations came into operation on 1st February, 1913, and they consolidate and amend all previous Regulations relating to the notification of Tuberculosis.

The number of deaths from non-pulmonary Tuberculosis in Rochdale during the year under review was 39, which is equal to a death-rate of 0.42 per 1,000.

In the previous year 1911 the number of deaths from these diseases was 45, a death-rate of 0.49 per 1,000. The death-rate from non-pulmonary Tuberculosis in ten of the neighbouring manufacturing towns as shown in Table V. of Section I., averages 0.43 per 1,000. Five of these towns have a rate lower than Rochdale ; and the death-rate ranges from 0.24 per 1,000 (Blackburn) to 0.66 per 1,000 (St. Helens and Wigan).

### Administrative Procedure at present.

The administrative procedure for the control of Phthisis and other Tubercular diseases in this Borough may be summarised under the following headings :—

#### I.—LIVING CASES.

- (a) These on notification are visited by the Lady Health Visitors or other members of the Sanitary Staff, as frequently as possible according to the circumstances of the case. Advice is given personally and by card regarding such precautions as should be taken in coughing and expectorating to prevent the infection of



others ; the relative advantages and proper methods of dealing with linen and paper handkerchiefs and spittoons ; the value of sunlight, fresh air and proper methods of ventilating living rooms and bedrooms ; the value of wet cleansing of rooms to avoid dust ; the necessity for patient to have separate bedrooms when possible ; proper methods of washing and disinfecting clothes, floors, &c., and any other advice and assistance which the circumstances of the case may demand.

- (b) All disinfectants are supplied in reasonable quantities by the Health Department.
- (c) If this department is notified of removal of any patient from one house to another, the house vacated is properly disinfected by the Sanitary Staff before re-occupation by another tenant.
- (d) The bacteriological examination of sputa is made free of charge at the Municipal Bacteriological Laboratory, Town Hall, for all medical men practicing within the Borough. For those outside the Borough a nominal charge is made.

## II.—DEATH CASES.

House, clothes, and furniture are disinfected by the Sanitary Staff.

### The Insurance Act—Tuberculosis Sections.

It has been the desire of the Health Committee of this Corporation to put into operation, as early as possible, the sections of this Act which deal with the treatment and more effective control of tuberculosis. The chief provisions contained in these sections were discussed in my Annual Report for 1911 ; and in this and previous reports, the question of the adoption of more active administrative measures for the control of Tuberculosis has been discussed at considerable length. Indeed it may be stated that before the advent of the above Act, through a series of Conferences between the Rochdale and adjacent authorities, which constitute the Rochdale Registration area, and an enquiry by the Local Government Board which followed, a joint scheme for this combined area was prepared and adopted, and would undoubtedly have been put in operation if the provisions of the above Act had not entirely changed the situation. By the terms of this Act it is necessary for the carrying out of any such joint scheme, that the negotiations and terms of agreement be arranged between the Borough Corporation and the County Council of Lancashire. These negotiations have been in progress for a considerable time, but as no decision has been arrived at, it is incumbent for the present to defer any consideration of the scheme which may ultimately be adopted. This is very regrettable, as we had hoped to be able to include in this Report at least the outlines, if not the details, of a full scheme for this district—either a scheme for the combined area or a scheme for the County Borough alone.

SECTION III.

Departmental Work.

WORK OF LADY HEALTH VISITORS.

The work of the Health Visitors is chiefly concerned with the visitation of infants and mothers with a view to reducing mortality amongst infants, supervision of midwives, and administrative measures against Tuberculosis.

A statistical summary of their work during the past year 1912, and the two preceding years, is provided in the following table :—

Summary of Health Visitors' Visits.

	1912	1911	1910
Total Visits ... ..	5,500	5,499	4,416
Revisits for purpose of superintending the carrying out of the suggestions and advice given— especially regarding infant nursing and feeding ...	3,035	2,821	2,098
Births ... ..	1,966	2,039	1,904
Infant Deaths ... ..	181	207	168
Diarrhœa Deaths (over 1 year of age) ... ..	1	12	7
Phthisis Deaths ... ..	88	70	101
Phthisis Notifications ... ..	180	107	77
House to House Visits ... ..	...	7	26
Puerperal Fever ... ..	8	10	4
Diarrhœa and Enteritis ... ..	...	208	...
Complaints ... ..	9	9	20
Midwives ... ..	32	9	11

Administration of Midwives Act, 1902.

The Local Supervising Authority under this Act, for the Borough, is the Town Council, and the work is carried out by the two Health Visitors, who act under the supervision of the Medical Officer of Health.

The number of midwives who gave notice of intention to practise in accordance with the Act, during the year 1912 was 51, as compared with 47 in 1911. During 1913, up to the time of writing, three midwives have resigned from practice in this Borough (two uncertified and one certified), and two additional midwives, both duly certified, have been enrolled, bringing the total at present on the books to 50.

These are classified in the following table :—

CLASS	Total	Working as Midwives	Working chiefly as Monthly Nurses	Only attending occasional cases
(a) Trained and Certificated in Midwifery by a recognised Authority ... ..	23	16	7	...
(b) In bona-fide practice as a Midwife for at least one year previous to the passing of the Midwives Act ... ..	27	20	2	5
TOTALS ... ..	50	36	9	5

It was necessary during the year to either caution or suspend seven Midwives for the reasons set out below :—

	No. of Midwives affected	Action Taken
Failing to notify change of address, in accordance with rules of C.M.B.	2	Cautioned by letter.
Failing to send for medical help in a case of severe hæmorrhage.	1	Cautioned personally.
Attending patients suffering from Puerperal Fever.	4	Suspended from practice until bag, appliances and clothing were disinfected ; and instructions given to the Midwife regarding disinfection of herself.

#### Notifications.

The following is a summary of the notifications which have been received at this office from Midwives, in accordance with Rule 21.

(a) Notifications of sending for Medical help :—

##### MOTHER—

Delayed Labour	...	...	...	...	59
Obstructed Labour	...	...	...	...	31
Ruptured Perineum	...	...	...	...	34
Retained Placenta or Membranes	...	...	...	...	11
Breech Presentation	...	...	...	...	16
Malpresentation	...	...	...	...	14
Hæmorrhage, Ante-partum	...	...	...	...	4
Hæmorrhage, Post-partum	...	...	...	...	5
High Temperature	...	...	...	...	4
Premature Labour	...	...	...	...	4
Miscarriage	...	...	...	...	4
Uterine Inertia	...	...	...	...	3
Deformed Pelvis	...	...	...	...	3
Small Cervix	...	...	...	...	14
Prolapsed Uterus	...	...	...	...	1
Weakness and unsatisfactory condition of Mother	...	...	...	...	11



## BABY—

Ophthalmia	...	...	...	...	...	16
General Weakness	...	...	...	...	...	8
Imperforate Anus	...	...	...	...	...	1
Spina Bifida	...	...	...	...	...	1
Jaundice	...	...	...	...	...	1
Convulsions	...	...	...	...	...	1
Prematurity	...	...	...	...	...	7
						35

(b) Notifications of Still-births ... .. 4

**Ophthalmia Neonatorum.**

During the past year the notifications by Midwives of sending for medical help include 16 cases of this disease. The most of these cases received treatment from medical men, and a few institutional treatment. Such cases were regularly visited by the Health Visitors to see that instructions were carried out. All Midwives on the roll in this Borough from time to time receive printed cards of directions affecting their practice, and especially as regards their duties in cases of Ophthalmia.

In a recent report issued by the Local Government Board of Scotland, it is found that there are over 25,000 blind persons in England and Wales ; and of the latter number that about 2,000 owe their blindness to Ophthalmia Neonatorum. If the estimate is made for the United Kingdom then about 3,000 persons owe their blindness to this disease. Thus Ophthalmia Neonatorum is responsible for over 10 per cent. of all cases of blindness, and is by far the most common cause of blindness amongst children.

In view of the disastrous effects of this disease, many Health Authorities have adopted compulsory notification, and the advisability of making this disease compulsorily notifiable is a question well worth the consideration of the Health Authority of this Borough. Further, the cost of education of a blind child is estimated to be from £350 to £500, as compared with £50 for a child with normal sight.

The chief advantages of notification are early inspection and treatment, bacteriological examination, and the adoption of such educative measures as are found necessary in each case.

**The Notification of Births Act, 1907.**

This Act, in districts in which it has been adopted, provides for the notification of all births within 36 hours ; and as a means of obtaining early information of births as they occur it has proved to be invaluable in this Borough. The Health Visitors are now able to pay a visit to the house earlier than would otherwise be possible, and to give advise, where necessary.

During the past year (1912) 1,882 notifications were received under this Act, and these are tabulated in the subjoined table in comparison with the previous year.

	1912		1911	
	No. of Births	Per-centage	No. of Births	Per-centage
Births Notified by Midwives	1,584	81.4	1,529	80.0
"    "    Medical Men	233	12.0	254	13.0
"    "    Parents	65	3.3	82	4.0
TOTAL	1,882	96.7	1,865	97.0
Births not Notified	64	3.3	59	3.0

Of the 64 not notified in 1912, 20 occurred in Public Institutions (Dearnley Workhouse 18, Infirmary 2).

The number of Still-births, notified chiefly by Midwives, under this Act, numbered 100.

### Municipal Bacteriological Laboratory.

The Laboratory in connection with our own Public Health Department continues to be of great service as a means of assisting in the diagnosis of certain diseases. Since 1911, the year in which the Laboratory was opened for work, the number of specimens to be examined has increased enormously, and during the past year ending December no less than 576 examinations were made, as shown in the subjoined summary.

	SUSPECTED DISEASE.																			
YEAR	Diphtheria				Enteric Fever--				Tuberculosis				Other Diseases				TOTALS			
	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Totals
1908	2	10	...	12	8	9	1	18	9	16	...	25	...	2	1	3	19	37	2	58
1909	15	41	3	59	4	10	...	14	5	29	...	34	1	2	...	3	25	82	3	110
1910	3	26	...	29	6	14	...	20	18	34	...	52	1	...	5	6	28	74	5	107
1911	25	30	3	58	2	13	1	16	33	83	...	116	94	26	10	130	154	152	14	320
1912	45	47	11	103	9	19	...	28	62	115	...	177	193	60	15	268*	309	241	26	576

\* This total includes 256 examinations of Ringworm hair.

Previous to the year 1911 the specimens were sent to the Public Health Laboratory, Manchester, for examination.

The opening of the School Clinic has contributed to the work of the Laboratory ; and there is no doubt that the sputa to be examined will be further increased now that the Tuberculosis sections of the Insurance Act are in operation.

### WATER SUPPLIES.

During the year samples for analysis have been regularly taken at different times of the day and from various parts of the area of supply. The reports of the Borough Analyst invariably show that the quality of the water supplied to the Borough is good and wholesome ; that the water is not only free from any suspended matter, but is also soft and free from organic pollution and suitable for all requirements. In some cases, however, a trace of lead not exceeding 0.06 to 0.02 grains per gallon was found in morning supplies. These traces quite disappeared after allowing the water to run off for one or two minutes.

### SALE OF FOOD AND DRUGS ACTS.

217 samples of food and drugs have been taken in connection with these Acts, as against 228 in 1911, a decrease of 11, and an increase of 22 over 1910.

Of these 217 samples 192 were formal and 25 informal.

The following is a list of the samples :—

DESCRIPTION	Number taken		Result of Analysis	
	Formally	Informally	Genuine	Adulterated
Milk .....	119	4	117	6
Skimmed Milk .....	13	1	11	3
Butter .....	13	4	17	...
Margarine .....	3	...	3	...
Lard .....	5	4	9	...
Cheese .....	2	...	1	1
Coffee .....	2	...	2	...
Vinegar .....	2	...	2	...
Liquorice Powder .....	1	...	1	...
Soda Water .....	3	12	10	5
Whisky (Scotch) .....	8	...	7	1
„ (Irish) .....	8	...	8	...
Rum .....	2	...	2	...
Camphorated Oil .....	4	...	4	...
Olive Oil.....	1	...	1	...
Sweet Spirit of Nitre ...	2	...	2	...
Cascara Sagrada .....	1	...	1	...
Castor Oil .....	2	...	2	...
Epsom Salts .....	1	...	1	...
TOTALS .....	192	25	201	16
	217		217	

The full analysis of the milk samples in connection with which proceedings were taken is given in the next table :—

No.	PERCENTAGE OF			Extent of Adulteration
	Fatty Solids	Non-fatty Solids	Water	
574	2.91	7.92	89.17	6.8 per cent. of added water.
597	3.13	7.17	89.70	15.6 per cent. of added water.
600	3.40	7.53	89.07	11.4 per cent. of added water.
602	2.95	7.36	89.69	13.6 per cent. of added water.

Of the 16 samples reported as adulterated, five were informal. In four other cases there was considered to be insufficient grounds for legal proceedings. With regard to the seven remaining cases, legal proceedings were instituted. Particulars of the cases are given in the following table, which also includes four other offences under these Acts :—



No.	Date of Hearing	OFFENCE	RESULT
...	1912 Apl. 3	Refusing to sell milk to the Inspector	Fined 10/6 and costs.
...	July 31	Refusing to sell milk to the Inspector	Fined 21/- and costs.
574	Aug. 24	Selling milk with 6·8% of added water	Fined 21/- and costs.
...	Aug. 14	Refusing to sell milk to the Inspector	Fined 40/- and costs.
587	Sep. 18	Selling soda water containing no bi-carbonate of soda ... ..	Fined 5/- and costs.
589	Sep. 18	Selling soda water containing no bi-carbonate of soda ... ..	Fined 10/6 and costs.
597	Oct. 10	Selling skimmed milk containing 15·6% of added water ... ..	Fined £5 and costs.
600	Oct. 10	Selling skimmed milk containing 11·4% of added water ... ..	Fined 40/- and costs.
602	Oct. 25	Selling milk containing 13·6% of added water ... ..	Case dismissed.
...	1913 Jan. 3	Refusing to sell milk to the Inspector	Fined 50/- and costs.
662	Jan. 31	Selling Scotch Whisky containing 3·6% excess added water ...	Fined 21/- and costs.

In the case of the proceedings taken with regard to the adulterated sample numbered 602 in the above table, the Magistrates found themselves in the position of being unable to do otherwise than dismiss the summons because each of the vendor's cans was labelled "All milk sold from this can is more or less diluted, and is sold as such. No standard guaranteed," and because notice was given to the Inspector at the time of purchase that the milk was sold according to label. As this case raised some questions of considerable importance as regards the interpretation and use of the Food and Drugs Act for purposes of securing a milk vendor against conviction in this manner, representations were made to the Board of Agriculture, whose Inspector visited Rochdale and investigated the case. As a result of this and other similar representations the weakness in the Food and Drugs Act is to be met by the powers given to the Local Government Board in the Milk and Dairies Bill now before Parliament, to make such general or special orders as they think fit, for regulating, amongst other things, "The labelling or marking of the receptacles of milk for human consumption, and the identification of churns and vessels used for the conveyance of such milk."

With regard to the penalties now imposed by the Rochdale Magistrates for proved offences under the Food and Drugs Acts, it is encouraging to find that these are heavier than previously, and are more likely to help in the prevention of adulteration.

### MILK AND CREAM REGULATIONS.

#### THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

Under powers given by the Public Health (Regulations as to Food) Act, 1907, the Local Government Board have issued regulations under this title, dated August 1st, 1912, which prohibit the addition of preservatives to milk or to cream containing less than 35 per cent. by weight of milk fat, and also the addition of any thickening substances to cream or preserved cream. In the case of cream containing over 35 per cent. of milk fat the addition of certain preservatives

is not prohibited by the Regulations, but is subject to a system of declaration. These regulations (except one sub-division relating to advertising preserved cream, which comes into operation on 1st January, 1913) came into operation October 1st, 1912.

#### THE SALE OF MILK REGULATIONS, 1912.

These regulations are issued by the Board of Agriculture and Fisheries, under Section 4 of the Food and Drugs Act, 1889, and provide that where a sample of skimmed or separated milk contains less than 8.7 per cent. of milk solids other than milk fat, it shall be presumed that the milk is not genuine. They revoke Regulation 3 of the Sale of Milk Regulations, 1901, which provided for a limit of 9.0 per cent. of milk solids other than milk fat.

#### COWSHEDS, DAIRIES AND MILK SUPPLIES.

During the past year 149 inspections have been made of the Dairies and Cowsheds within the Borough. The new Regulations made by the Council of this Borough with respect to Dairies and Cowsheds came into operation on the 1st of January, 1912; although the section dealing with ventilation and air space, with which is intimately associated many other considerations as to structural conditions, does not become operative until the 1st January, 1914. Consequently, although the structural improvements which are so greatly needed in many of the dairy farms in this district have yet to be undertaken, yet much good work has been accomplished during the year. In some cases cowsheds have been entirely reconstructed, while in other cases such matters as drainage, floors, light and ventilation have been dealt with in a satisfactory manner.

#### Milk Shops.

Under the new Regulations 80 inspections of milkshops were made during the year. The number of milkshops found to exist within the Borough was 52. Of these 20 had not been previously registered, and in eight cases the proprietors preferred to give up the business of milk selling rather than be registered. In one case the premises were not at all suitable for the business, which was discontinued on that account.

The following is a statement of conditions found as a result of inspection :—

Premises altogether unsuitable	...	...	...	...	...	...	1
„ not registered	...	...	...	...	...	...	20
„ where milk vessels were uncovered	...	...	...	...	...	...	20
„ „ utensils, &c., were very clean	...	...	...	...	...	...	14
„ „ „ were fairly clean	...	...	...	...	...	...	10
„ „ „ were dirty	...	...	...	...	...	...	4
„ „ milk vessels were properly covered	...	...	...	...	...	...	6

In each case of neglect or default the owner was warned and instructed as to carrying out the regulations.

The structural arrangements and suitability of most of these premises used for the sale of milk is a matter which will require very careful consideration. Only two shops were found to meet the requirements of the Regulations in all respects, and it is evident that the rigid enforcement of the new Regulations might easily be the means of seriously restricting the very small retail trade carried on. In the majority of cases, only from half-gallon to one gallon of milk per day is sold, principally in half-pennyworths and pennyworths, to customers who cannot always secure milk from farmers' floats. It is also of some importance to note that these small milk-vendors are almost invariably supplied by dairy farmers from districts outside the Borough, over whose premises no real control can at present be exercised.

#### MEAT AND FOOD INSPECTION.

The work under this heading includes the regular inspection of Butchers' Shops, 116 inspections of Fish Shops and Market Stalls, 1,008 of Slaughter-houses, six of Pig-keepers' premises, 52 of Hawkers' Carts, and 305 of Food Stores, including Chipped Potato and Fried Fish Shops and Ice Cream Manufactories. The duties of the inspector carrying out these inspections include the inspection of Offensive Trades, and of Dairies, Cowsheds, and Milkshops.



The insanitary conditions found and remedied, and the breaches of Regulations observed at places where food and meat is stored or prepared are as follows :—

Ice-cream premises to cleanse and linewash	...	...	...	...	1
Fish shops to cleanse and linewash	...	...	...	...	8
Food Stores to cleanse and linewash	...	...	...	...	12
Food Stores to provide slopstone	...	...	...	...	1
Tripe premises to cleanse and linewash	...	...	...	...	2

Slaughter-houses :—

Boiler re-set	...	...	...	...	...	...	1
Garbage to remove	...	...	...	...	...	...	3
Yard to repave	...	...	...	...	...	...	1
Premises to linewash	...	...	...	...	...	...	17

The articles of food, and the amounts of food and meat seized or surrendered and destroyed as unfit for human consumption, are tabulated below :—

ARTICLES OF FOOD							No.	Weight (lbs.)
Sheep	...	...	...	...	...	...	7	234
Calves	...	...	...	...	...	...	1	40
Pigs	...	...	...	...	...	...	5	590
Lambs	...	...	...	...	...	...	3	92
Portions of Carcases	...	...	...	...	...	...	2	238
Portions of Organs	...	...	...	...	...	...	8	48
Sets of Offal	...	...	...	...	...	...	22	1,240
Plucks	...	...	...	...	...	...	19	190
Lungs	...	...	...	...	...	...	10	100
Livers	...	...	...	...	...	...	32	324
Hearts	...	...	...	...	...	...	3	9
Heads	...	...	...	...	...	...	3	56
Udders (Sets of)	...	...	...	...	...	...	2	20
Tongue	...	...	...	...	...	...	1	6
Veal	...	...	...	...	...	...	...	10
Kidneys	...	...	...	...	...	...	...	40
Blood Puddings...	...	...	...	...	...	...	...	35
Sausages	...	...	...	...	...	...	...	13
Rabbits	...	...	...	...	...	...	30	...
Ducks	...	...	...	...	...	...	4	...
Fish	...	...	...	...	...	...	...	388
Fruit	...	...	...	...	...	...	...	298
Frozen Beef	...	...	...	...	...	...	...	255
Pigs' Maws	...	...	...	...	...	...	...	112
Pieces of Beef	...	...	...	...	...	...	...	64
Pieces of Mutton	...	...	...	...	...	...	...	35
Pieces of Pork	...	...	...	...	...	...	...	103
Total Weight (in lbs.) seized, &c., (exclusive of Tuberculous Carcases)							...	4,540

In addition the carcases of 37 animals showed more or less evidence of Tuberculosis after slaughter ; and in five cases the total carcase, while in others certain parts, had to be destroyed.

### SLAUGHTER-HOUSES.

The number of recognised Slaughter-houses within the Borough is 31, the same number as last year ; 5 of these are registered, and the remaining 26 are licensed annually.

In previous Reports I have dealt at some length with the Slaughter-houses in this Borough, and have urged the early consideration of the provision of a Public Abattoir, as the situation, conditions, and structural arrangements of many of these Slaughter-houses are such as to require serious consideration.

During the past year, in further considering the wider question of the Meat Supply of this Borough, and as stated in the preface, an exhaustive investigation has been carried out and a Report made on these Slaughter-houses ; this Report is not included in the present Annual Report.

### OFFENSIVE TRADES.

The number of premises at which these trades are carried on is 11, viz. :—

Tripe Boilers	...	...	...	...	...	...	...	4
Gut Scrapers	...	...	...	...	...	...	...	2
Fellmongers	...	...	...	...	...	...	...	3
Tallow Melters	...	...	...	...	...	...	...	1
Knacker's Yard	...	...	...	...	...	...	...	1

87 inspections were made of these premises during the year, at the season when nuisance was most likely to occur. In the last year's Annual Report it was urged that Bye-laws should be provided for the control of the offensive trades carried on within the Borough ; and the Council have now under consideration the adoption of powers given in the Public Health Acts Amendment Act, 1907, for the making of such Bye-laws. It is probable that by these Bye-laws control will be established over such trades, businesses or manufactories, which, though offensive, were not originally included in Section 112 of the 1875 Act. Thus the model Bye-laws issued by the Local Government Board in 1911, provide for the regulation of such trades as blood-drying, leather-dressing, size-making, tanning, fat-melting or fat-extracting, glue-making, gut scraping, dealing in rags and bones, and fish frying, which were not included in the 1875 Act, but over which it would be a distinct advantage to possess control by Bye-laws.

### BLACK SMOKE ABATEMENT.

The recorded observations during 1912 number 194, or 101 fewer than the number recorded for 1911. During a period of nearly three months, during which time the effects of the Coal Strike were being felt—from March 8th to May 20th—no observations were made on factory chimneys. The observations taken were for a period of one half-hour each, and were confined to 49 of the chimneys belonging to the working manufactories of the town. Of these 49 chimneys, 11 were kept more regularly under observation than the rest on account of the frequent emission of black smoke ; the number of observations on these 11 chimneys was 116, and varied from 37 to six for each chimney.

The total number of minutes during which black smoke was found to issue from the 49 chimneys was 318, an average of 1.6 minutes for each observation, as against an average of 1.7 minutes per observation during 1911. The time limits fixed by the Committee were exceeded on 22 occasions, against 26 occasions in 1911, and resulted in notices being served or proceedings being instituted. The time limits are :—

- 1.—Chimneys with one, two or three boilers working—3 minutes ;
- 2.—Chimneys with four or more boilers working—4 minutes.

In case of chimneys having one, two or three boilers working the limit was exceeded 21 times, against 30 times in 1911 ; and of chimneys having four or more boilers working the limit was exceeded once against once in 1911.



The following table gives particulars of the issue of black smoke from these chimneys :—

**Issue of Dense Black Smoke on 22 occasions when time limits were exceeded.**

	No. of Observations	Total Issue in Minutes	Average No. of Minutes per Observation	Average No. of Minutes per Boiler	Number of Cases in which Smoke-Preventing Appliances were—		
					In Use.	Partly in use	Not in Use.
1, 2 or 3 Boilers Working }	21	143	6.8	4.0	6	...	15
4 or more Boilers Working }	1	11	11.0	2.7	...	...	1
Both cases combined	22	154	7.0	3.8	6	...	16

In seven cases, against five in 1911, legal proceedings were instituted with the results shown below :—

**Legal Proceedings for Abatement of Black Smoke Nuisance.**

No. of Firm on Register	Date of Hearing	OFFENCE	RESULT
117	Jan. 3	Failing to comply with an order for abatement made 28/11/10 ...	Fined 10/- and costs.
41	Feb. 9	Emitting 20½ minutes of Black Smoke in half-hour (two boilers) ...	Order for abatement within 6 weeks and pay costs.
117	Feb. 21	Emitting 7½ minutes of Black Smoke in half-hour (one boiler) ...	Fined 10/- and costs.
117	June 19	Emitting 5 minutes of Black Smoke in half-hour (one boiler) ...	Fined 10/- and costs.
117	July 31	Emitting 4½ minutes of Black Smoke in half-hour (one boiler) ...	Fined 10/- and costs.
71	Oct. 23	Emitting 4 minutes of Black Smoke in half-hour (two boilers) ...	Order for abatement within 28 days and pay costs.
41	Oct. 23	Failing to comply with an order made 9/2/12 ...	Fined 10/- and costs.

## SEWERAGE AND THE DISPOSAL OF SEWAGE.

In the Report of last year reference was made to the new scheme for the more satisfactory treatment and disposal of sewage prepared by the Borough Surveyor, who further supplies the following particulars as to the progress of this work :—

As to Sewage Disposal there are two works, the main one at Roch Mills, and a branch one at Castleton ; the latter was completed in 1905. As to Roch Mills, these works are partly land filtration and partly percolating filters. The first and largest installment of the work of extension, in respect of which the Local Government Board issued their sanction for the borrowing of £31,500 in May, 1911, is practically complete ; the diversion of the Sudden Outfall Sewer to the Main Works, New Inlet Channels, Catchpits, Screening Machinery, Storm Water Tanks, &c., have been in use for several months, and the installation of 13 percolating filters, with the pumping plant will shortly be brought into full operation.

## REMOVAL OF HOUSE REFUSE, &c.

The following information has been kindly supplied by Mr. Brookman, Superintendent of the Cleansing Department :—

The cleansing of all pail closets and privies is carried out weekly except in the case of some works and mills where the cleansing is carried out two or three times weekly. In all cases freshly-washed pails are supplied and some chlorinated solution is put in each pail. As regards ashpits the refuse is usually collected weekly. The refuse is collected and burnt in Destructors, and the contents of the pail closets are made into a dry manure. Since the new plant was put down about seven years ago, no trouble has arisen in reference to complaints about the works, which are of course under frequent inspection by the Inspectors of the Local Government Board, Alkali Department. There is the greatest ease in disposing of the manure at a good price, the supply not being anything like equal to the demand, and at this time of the year every ton made is got away as soon as ready. A little over a year ago this department suffered considerably through the strike, but fortunately it was during the cold weather or the result might have been serious. As the conversion of pail closets goes steadily forward, such arrangements as are necessary in altering our collection can be readily made if a quicker conversion takes place, now that the method has got fairly into working order.

## FACTORY AND WORKSHOPS ACTS.

### Retail Bakehouses.

The number of bakehouses now on the Register is 176. Each of these has been visited and inspected at least twice—once in April, and once in October ; further visits depending on the necessities of each case. Following is a list of work done in connection with Retail Bakehouses :—

Number of Inspections of Retail Bakehouses	...	...	...	311
Cleansing and Limewashing carried out on intimation from				
Inspector	...	...	...	59
Wall-paper stripped off	...	...	...	2

A reasonable standard of cleanliness has again been maintained without resort to the service of any statutory notices in respect of work to be done.

### Workshops.

127 inspections of workshops (distinguished from workshop bakehouses) have been carried out during the year. The provision of suitable sanitary accommodation, which has, so far, been the principal defect found in connection with workshops, is now being given more attention ;



and in very many cases it has been found possible to make these improvements contemporarily with the work of pail-closet conversion. The general conditions existing at the workshops, are, on the whole, good ; and little trouble is experienced in securing the carrying out of the Inspector's requirements.

Following is a summary of work carried out in connection with Workshops :—

No. of Inspections of Workshops	...	...	...	...	...	127
Workshops cleansed and limewashed	...	...	...	...	...	8
Workshops properly ventilated	...	...	...	...	...	1
Over-crowding remedied	...	...	...	...	...	1
Water-closets provided separate for sexes	...	...	...	...	...	4
Water-closets repaired and cleansed	...	...	...	...	...	5
Outlet for gas fumes provided...	...	...	...	...	...	1
Stable under workroom discontinued	...	...	...	...	...	1

### Factories.

27 inspections of factories have been made, principally in connection with complaints received from H.M. Inspector of Factories. The complaints referred chiefly to the want of fasteners to closet doors, and to the want of sufficient screens. As it was thought that at the present stage of the pail closet conversion work, any expense incurred by factory owners should not be lost, it was considered advisable when pail closets were concerned to advise reconstructions and conversions, and at one and the same time to satisfy the Inspector's requirements and those of the Health Committee. The opportunities presented in this way have been taken full advantage of, and much good work has been accomplished or arranged for. Reports of action taken in respect of the complaints have been duly sent to H.M. Inspector of Factories.

### Homework.

6 inspections of outworkers' premises have been made during 1912, and in each case the conditions were satisfactory. The work in connection with the Factory and Workshops Acts is summarised below :—

### Administration of the Factory and Workshop Act, 1901.

#### 1.—INSPECTION.

Number of Inspections of Factories	...	...	...	...	...	27
„ „ Workshops and Workplaces	...	...	...	...	...	433
Total	...	...	...	...	...	460

#### 2.—DEFECTS FOUND AND REMEDIED.

Want of cleanliness	...	...	...	...	...	...	4
Want of ventilation	...	...	...	...	...	...	2
Overcrowding	...	...	...	...	...	...	1
Want of drainage of floors	...	...	...	...	...	...	1
Other nuisances	...	...	...	...	...	...	3
Sanitary accommodation —insufficient	...	...	...	...	...	...	4
unsuitable or defective	...	...	...	...	...	...	32
not separate for sexes	...	...	...	...	...	...	2
Total	...	...	...	...	...	...	49

## 3.—HOME WORK.

## OUTWORKERS' LISTS (S. 107).

NATURE OF WORK.	Lists received from Employers.				No. of Addresses of Outworkers		No. of Inspections of Outworkers Premises
	Twice per year		Once per year		received from other Councils	forwarded to other Councils	
	Lists	Out- workers	Lists	Out- workers			
Making, etc., of Wearing Apparel.	4	5	2	2	...	3	6

## 4.—REGISTERED WORKSHOPS.

No. of Workshops on Register (S. 131) at the end of the year ... 473

## 5.—OTHER MATTERS.

## MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :—

Failure to affix abstract of Factory and Workshops Act (S. 133)	4
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act ...	{ Notified by H.M. Inspectors 27 Reports (of action taken) sent to H.M. Inspectors 24

## UNDERGROUND BAKEHOUSES (S. 101)

Certificates granted during the year ...	0
In use at end of year ...	8

## NUISANCES UNDER PUBLIC HEALTH ACTS.

The work under this section connected with abatement of nuisances in and around dwellings as distinguished from the remedying of defects found in Bakehouses, Workshops, Slaughter-houses, Cowsheds, &c., and of nuisances from Black Smoke, has been very considerable. Besides the usual district inspection, resulting in the abatement of a large number of nuisances, many complaints from persons outside the department have been dealt with. The number of complaints so received was 216, necessitating 286 visits of inspection, and in each case the defects found have been remedied in the usual way. In addition to the inspection of houses and of miscellaneous inspections (numbering about 1,700) the following work has been necessitated :—

## Work in connection with Nuisances.

NATURE OF INSPECTIONS, ETC.	No.
Inspections of Work in progress ...	2,649
Re-inspections to ascertain if work in progress ...	503
Owners interviewed concerning nuisances ...	517
Occupiers interviewed concerning nuisances ...	111
Preliminary Notices sent out ...	260
Statutory Notices served ...	51
Drains tested (29 found defective) ...	30

The miscellaneous inspections include :—11 inspections of waste-water closets and 27 inspections with regard to overcrowding.



## Statement of the Removal of Nuisances in and around Dwellings.

NATURE OF WORK DONE								No.
<b>HOUSES—</b>								
Houses limewashed and cleansed	...	...	...	...	...	...	...	7
„ repaired —walls and ceilings	...	...	...	...	...	...	...	5
„ „ —floors	...	...	...	...	...	...	...	2
„ „ —roofs	...	...	...	...	...	...	...	7
„ rendered dry—walls and ceilings	...	...	...	...	...	...	...	13
Light and Ventilation improved	...	...	...	...	...	...	...	2
Bath-rooms ventilated	...	...	...	...	...	...	...	3
Water removed from cellars	...	...	...	...	...	...	...	9
Nuisance from escape of Coal Gas removed	...	...	...	...	...	...	...	1
Cases of overcrowding remedied	...	...	...	...	...	...	...	5
<b>ACCUMULATIONS—</b>								
Offensive Accumulations removed	...	...	...	...	...	...	...	10
Stagnant Water removed	...	...	...	...	...	...	...	8
Cellar Areas cleansed	...	...	...	...	...	...	...	3
<b>CLOSETS—</b>								
Midden-prives converted to water-closets and dry ash-places or bins	...	...	...	...	...	...	...	32
Pail-closets converted into water-closets (under Public Health Act)	...	...	...	...	...	...	...	2
„ repaired or altered	...	...	...	...	...	...	...	11
Closets cleansed and limewashed	...	...	...	...	...	...	...	10
Additional water-closets provided (under Public Health Act)	...	...	...	...	...	...	...	8
Water-closets repaired or altered	...	...	...	...	...	...	...	5
„ opened and cleansed	...	...	...	...	...	...	...	2
„ basin renewed	...	...	...	...	...	...	...	1
Waste water-closet repaired or altered	...	...	...	...	...	...	...	1
„ opened and cleansed	...	...	...	...	...	...	...	3
<b>ASHPLACES—</b>								
Additional ashplaces or ashbins provided	...	...	...	...	...	...	...	60
Ashplace floors raised and flagged	...	...	...	...	...	...	...	15
Ashplaces repaired or reconstructed	...	...	...	...	...	...	...	29
<b>DRAINS—</b>								
Drains entirely reconstructed	...	...	...	...	...	...	...	139
„ efficiently trapped	...	...	...	...	...	...	...	9
„ provided with ventilating shafts	...	...	...	...	...	...	...	29
„ „ access chambers	...	...	...	...	...	...	...	40
„ repaired only	...	...	...	...	...	...	...	61
„ connected to sewer (previously unconnected)	...	...	...	...	...	...	...	1
„ opened and cleansed	...	...	...	...	...	...	...	64
„ inside buildings abolished	...	...	...	...	...	...	...	6
Cellar drains repaired or reconstructed	...	...	...	...	...	...	...	5
„ removed to areas	...	...	...	...	...	...	...	1
<b>WASTE-PIPES, ETC.—</b>								
Bath and lavatory waste-pipes repaired or disconnected from drains	...	...	...	...	...	...	...	7
Soil pipes repaired or renewed	...	...	...	...	...	...	...	3
Rain-water pipes repaired or renewed	...	...	...	...	...	...	...	14
„ „ disconnected from drains	...	...	...	...	...	...	...	38
Eavestroughing repaired or renewed	...	...	...	...	...	...	...	20
Kitchen waste-pipes disconnected	...	...	...	...	...	...	...	8
„ „ trapped, lengthened or repaired	...	...	...	...	...	...	...	13
Slopstones repaired or re-set	...	...	...	...	...	...	...	2
<b>YARDS AND PASSAGES—</b>								
Back yards repaired or repaved	...	...	...	...	...	...	...	4
„ cleansed	...	...	...	...	...	...	...	11
Common yards cleansed	...	...	...	...	...	...	...	2
„ surfaces repaired	...	...	...	...	...	...	...	2
Obstructive wooden and other buildings removed	...	...	...	...	...	...	...	13
<b>ANIMALS, EFFLUVIA, ETC.—</b>								
Removals of animals and fowls improperly kept	...	...	...	...	...	...	...	3
Trade Effluvium nuisances near dwellings abated	...	...	...	...	...	...	...	6
Manure pits repaired or reconstructed	...	...	...	...	...	...	...	3
„ cleansed	...	...	...	...	...	...	...	5

## INFECTIOUS DISEASES.

386 cases of Infectious Disease have been taken to Marland Hospital by the Removal Officers, while 189 other cases were isolated at home. On each occasion a schedule containing information relating to the sanitary conditions at the homes, the name of the person supplying milk to the family, and the probable source of infection, as well as particulars of persons in contact, and of other members of the family, was made up by an Inspector who specially inspected each of the homes. These, and subsequent inspections where cases were isolated at home, necessitated 392 visits during the year. The following Table classifies the cases dealt with:—

Disease	Removed to Hospital	Isolated at Home	Total
Scarlet Fever .....	351	100	451
Diphtheria .....	28	23	51
Enteric Fever .....	7	6	13
Erysipelas .....	...	52	52
Puerperal Fever ...	...	8	8
TOTALS .....	386	189	575

## DISINFECTION.

The total number of rooms which were disinfected by fumigation, and spraying was 974. 277 of these were at dwellings in which Phthisis had occurred, and where death or change of residence by the patient had taken place, and the remaining 697 were at dwellings from which cases had been removed to Hospital, or had been isolated at home and recovered or died.

The total number of articles disinfected by means of the Steam Disinfector or otherwise, the number of articles destroyed by permission, and the number of rooms fumigated, etc., are shown below :—

### Work of Disinfection.

ARTICLES PASSED THROUGH STEAM AND HOT AIR DISINFECTOR:—

Mattresses	...	...	...	...	...	...	...	...	32
Beds	...	...	...	...	...	...	...	...	547
Bolsters, Pillows and Cases	...	...	...	...	...	...	...	...	2121
Sheets and Quilts	...	...	...	...	...	...	...	...	1228
Blankets	...	...	...	...	...	...	...	...	968
Underclothing	...	...	...	...	...	...	...	...	1216
Shawls, Bodices and Skirts	...	...	...	...	...	...	...	...	315
Carpets and Rugs	...	...	...	...	...	...	...	...	120
Miscellaneous Articles	...	...	...	...	...	...	...	...	671
									7,218
Midwives' Appliances specially treated	...	...	...	...	...	...	...	...	4
Articles of Bedding, etc., destroyed with consent of owners	...	...	...	...	...	...	...	...	217
 Rooms fumigated or sprayed :—									
After Phthisis	...	...	...	...	...	...	...	...	277
After other Infectious Diseases	...	...	...	...	...	...	...	...	697
									974



The following Schools have also been both sprayed and fumigated in consequence of the occurrence of Infectious Disease :—

P. C. School	...	...	...	...	...	1 room
S. C. School	...	...	...	...	...	8 rooms
R. St. School	...	...	...	...	...	4 „
M. C. School	...	...	...	...	...	5 „
St. E. School	...	...	...	...	...	6 „
C. H. School (Private)	...	...	...	...	...	1 room
T. L. School (Private)	...	...	...	...	...	6 rooms

#### RAG FLOCK ACT, 1911, AND REGULATIONS OF 1912.

This Act, and Regulations made thereunder, provide that it shall not be lawful for any person to sell, or have in his possession for sale, flock manufactured from rags, or to use for the purpose of making any article of upholstery, cushions, or bedding, flock manufactured from rags, or to have in his possession flock manufactured from rags intended to be used for any such purpose, unless the flock conforms to such standard of cleanliness as, when the amount of soluble chlorine in the form of chlorides, removed by thorough washing with distilled water at a temperature not exceeding 25 degrees Cent. from not less than 40 grammes of a well-mixed sample of flock, does not exceed 30 parts of chlorine in 100,000 parts of the flock. The regulations came into operation on the 1st day of July, 1912, but up to the present it has not been found necessary to take any action under this Act.

#### CANAL BOATS ACTS.

72 inspections of Canal Boats have been made during the year. All boats were found to comply with the Regulations except one, whose occupier failed to produce his certificate. This was duly remedied.

#### THE CONVERSION OF SEPARATE PAIL CLOSETS, JOINT PAIL CLOSETS, AND PRIVY MIDDENS TO THE FRESH WATER CARRIAGE SYSTEM.

In my previous Report I referred to the initial difficulties experienced in the carrying out of conversion work, and hoped that the progress of the work would be accelerated during 1912. The actual results show that this hope is now being realised, as will be seen in the subjoined table :—

##### Progress of Work of Conversion.

	No. Scheduled and Notice served for conversion	No. work completed	No. work in progress or in hands of Contractors	No. Abolished	Additional provided
Up to end of 1911 ...	618	164	191	2	21
June, 1912 ...	1215	436	360	6	36
Up to end of 1912 ...	1865	841	275	30	49
June, 1913 ...	2408	1185	496	40	71

The number of completed conversions increased from 164 in December, 1911, to 841 in December, 1912, and the number of additional water-closets provided from 21 to 49 during the same period—a total increase of 705. At the present time (June, 1913) the number of conversions and additional closets has increased to 1,256, this showing that the original intended rate of conversion, namely, 700 per year, is being well maintained.

As a financial measure of the work done, it may be stated that for the first 887 pail closets converted, to the beginning of March this year, the amount of contribution paid by the Corporation was £2,010 1s. 9d., or an average of £2 5s. 4d. per closet ; while the total cost of conversions and works connected therewith amounted approximately to £7,018. The owners of property have thus spent approximately £5,000 in actual conversion work and works of improvement ; while to this it has to be added that during the same time approximately £1,061 has been spent by property owners in the conversion of privy middens, for which there has been no contribution.

### SEPARATE PAIL CLOSET CONVERSION.

#### Additional works carried out in connection with Pail Closet Conversions.

Ref. No. in Register	No. of Houses	PARTICULARS OF WORK
30	1	Reconstruction of drains. New sewer provided.
120	1	Drain reconstructed ; one new manhole ; bath and lavatory and W.C. fixed inside house ; outside pail closet taken down ; ashbin provided.
121	1	Additional drainage provided ; one new manhole ; one additional W.C. provided ; one additional door provided ; two ashbins provided.
169	4	All ashplace and closet buildings and yard walls taken down ; new W.C.'s built against house walls ; ashbins provided ; rain-water pipe and eavestroughing altered ; vent-shaft provided ; yards flagged.
181	2	Closet buildings raised ; yard wall rebuilt.
209, 210	2	Ashplace buildings and yard wall repaired.
219	10	Ashplace floors raised and flagged.
225	7	Main drain extended ; vent-shaft provided.
239	2	Two rain-water pipes disconnected ; drains repaired.
243	12	Drain running down yards abolished ; new connections to sewer made for each house ; all closet and ashplace buildings and yard walls taken down ; new water-closets built and ashbins provided.
244	6	Six drains reconstructed and provided with one manhole, one lamp eye, and one ventilating shaft ; drain intercepted ; drain inlets refixed ; one R.W.P. disconnected.
266	1	Lavatory waste-pipes rearranged ; one additional W.C. provided ; kitchen rearranged ; drains reconstructed.
—	1	Lock-up shop : pail closet converted.
300	1	One pail closet abolished.
301	2	Drain extended, rendered accessible and ventilated ; intercepting chamber and two vent-shafts provided.
302	4 Office and Workshop	Two new W.C.'s provided for workshop ; one pail closet abolished. New main drain with two manholes and one vent-shaft provided ; two branch drains reconstructed. Soil pipe repaired ; one pail closet converted for office.
311	1	Drains relaid ; one lamp eye provided.

Ref. No. in Register	No. of Houses	PARTICULARS OF WORK
312, 400, 404	6 and Lock-up Shop	One water-closet provided for lock-up shop ; one pail closet abolished ; new passage drain with manhole, lamp eye and vent-shaft provided ; two yard drains repaired.
339	1	Closet and ashplace building reconstructed.
358	7	Main drain extended ; one lamp eye provided ; rain-water pipe disconnected.
360	1	Water-closet fixed inside ; drains reconstructed ; one manhole provided ; four branch drains relaid ; old pail closet and ashplace building taken down ; ash-bin provided.
361	2	Two pail closets abolished.
362	1	Water-closet fixed inside ; bath and lavatory arrangements overhauled ; new swivel window provided to bathroom.
363	1	Drains altered ; water-closet fixed inside ; bath and lavatory waste-pipes rearranged and ventilated ; new swivel window to bathroom.
365, 406	3	Block of pail closets and ashplaces taken down and more yard space provided ; bathroom constructed in one house and provided with water-closet, bath and lavatory basin ; all drains diverted from under houses and reconstructed with manhole, lamp eye and vent-shafts to meet new conditions ; one kitchen rearranged and provided with better light, and slopstone removed.
379	1	Bath and lavatory room with water-closet provided inside ; drains repaired ; one manhole built.
397	1	Additional water-closet provided.
398	3	Additional water-closet provided ; drain extended and ventilated.
405	5	Five closets rebuilt ; five ashbins provided.
406	1	Drain repaired ; defective soil-pipe trap removed ; untrapped inlets trapped with proper gullies.
416	3	Drains repaired ; three rain-water pipes disconnected.
423	3	Two closets rebuilt ; rain-water pipe disconnected.
455	1	Ashplace building removed to gain yard space ; ashbin provided ; drain repaired ; rain-water pipe disconnected.
456	1	Rain-water pipe disconnected.
458, 459	2	Two closet buildings altered ; rain-water pipes disconnected.
460	2 and Workshop	Drain extended ; one lamp eye provided ; water-closet fixed for workshop.
525	1 and Workshop	Separate water-closet provided for workshop, closet buildings re-roofed and lighted.
530, 531	3	One additional water-closet and ashpin provided ; all water-closets fixed inside ; old closet and ashplace buildings removed from narrow passage.
532	1	Drain repaired.
589	6	Ashplace buildings utilised to lengthen water-closet buildings and six ashbins provided.



Ref. No. in Register	No. of Houses	PARTICULARS OF WORK
590	6	Main drain extended and repaired.
593	1	Drain extended and repaired.
629	2	Obstructive brick building removed ; water closets erected on site ; old pail closets abolished ; two ashbins provided.
693	6	Six water-closets provided inside, and bath and lavatory basin fixed in same room for each house ; outside closet buildings utilized for coal-places ; drains reconstructed and diverted from under house ; one manhole, one lamp eye and one vent-shaft provided.
35	9	New drain laid in passage, with access and ventilation ; yard redrained to passage drain ; ashbins provided in lieu of common ashplace.
47	8	Drains rendered accessible and ventilated ; ashbins provided.
50, 51	8	New drain laid in passage with two access chambers and ventilator ; provision left for redraining yards.
80	5	Yards redrained ; closets rebuilt against house walls, and ashbins provided.
81	2	Do. do. do. do. do.
84	5	Passage drain extended, rendered accessible and ventilated.
125	1	Wooden closet taken down and rebuilt ; ashpit abolished.
154, 155	2	New passage drain, with access and ventilation, constructed.
247, 248	4	Common yard redrained and provided with two access chambers and vent-shaft ; four closets altered and ashplace reconstructed.
257, 258	4	Ashpits abolished and bins provided.
260	1	Yard redrained ; ashpit replaced by bin.
263	4	Yards and passage redrained ; two access chambers and one vent-shaft provided.
298	1	Closet and ashplace demolished ; private yard, water-closet and ashbin provided.
327	5	Five closets and ashplaces demolished ; closets rebuilt so as to increase yard space ; ashbins provided.
328	2	Two closets and ashplaces demolished ; closets rebuilt so as to increase yard space ; ashbins provided.
331	2	Drains reconstructed with two access chambers and vent-shaft.
333	2	New passage drain with access and ventilation.
334	4	Four closets enlarged.
335	2	Drains intercepted and ventilated ; one closet enlarged.
368	1	Closet rebuilt in better position ; ashbin provided.
468	1	Yard redrained.
469	1	Yard redrained.
474	1	Ashbin provided.
505	2	Closets enlarged ; ashbins provided ; drains ventilated.

Ref. No. in Register	No. of Houses	PARTICULARS OF WORK
507	1	Closet rebuilt.
512, 513	2	Yards redrained and connected to sewer.
528	4	Yards redrained.
549	1	Drains relaid and ventilated.
550	4	Yards redrained.
603	2	Yards redrained ; closet rebuilt.

### CONVERSION OF JOINT PAIL CLOSETS.

Improvement work carried out contemporarily with work of conversion.

Refer- ence	No. of Houses affected	No. of Pail Closets	No. of Water- closets Provided	No. of Ashbins Provided	Particulars of Scheme of Improvement
A.	3	2	3	3	Common yard divided into two private yards and all yard walls rebuilt. Drains relaid and ventilated. New closet buildings provided in suitable positions and old block of buildings removed, resulting in increased yard space.
B.	3	2	3	—	Water-closets provided in convenient positions inside two premises. One of joint pail closet outside converted. Provision left for addition of bath and lavatory inside one house.
C.	2 and lock-up shop	2	2	2	Pail closets originally underground and from yard but approached from street at lower level. New water-closets and buildings have been provided in such positions as to be easily accessible from yard instead of street, and for this purpose a new side doorway has been made for one house. An underground ash-place has been abolished.
D.	2 Shops 1 Office	2	3	—	Additional W.C.
E.	2	1	1	—	Two small cottages, closet and ashplace buildings rebuilt.
F.	8	3	1	—	Eight cottages, four water-closets provided.
G.	4	2	2	—	
H.	2	1	1	—	Drain repaired and provided with manhole.
J.	3 and 1 Shop	2	3	—	Additional W.C.
K.	2 and 1 Shop	1	3	—	One closet building rebuilt ; two additional water-closets provided ; new drain with two access chambers and one vent-shaft constructed.

Refer- ence	No. of Houses affected	No. of Pail Closets	No. of Water- closets Provided	No. of Ashbins Provided	Particulars of Scheme of Improvement
L.	2 and W'rksh'p	2	3	—	One additional water-closet ; new drain with access chamber and vent-shaft constructed
M.	3	1	3	3	One closet building demolished ; three new water-closets built and dry ashbins provided.
N.	9	4	8	8	Four pail closets and ashpit demolished ; eight new water-closets and ashbins provided.
O.	2	1	1	2	Ashplace demolished.

### Midden Privies.

In the Castleton Moor Ward, to which district the primitive midden privy system is confined, there still exist 165 privies used by the tenants of 218 houses ; 123 of these houses have separate accommodation, while 95 houses are served by privies used jointly by the occupiers of two or more houses.

The following table shows the progress of the conversion of privies during 1912 :—

	No. of Privies	No. of Houses concerned
Notices standing over from 1911 ... ..	32	33
Notices issued during 1912 ... ..	34	37
TOTAL ... ..	66	70
Conversions during 1912 ... ..	30	31
Notices not yet complied with ... ..	36	39

It will be seen that the total number of privies converted to water-closets during the year is 30, affecting 31 houses. The 36 notices not yet complied with, remain on the list for the following reasons :—

Waiting for Sewer ... ..	3
In hands of Contractors ... ..	15
In progress ... ..	8
Left over in view of other alterations ... ..	8
No action yet taken ... ..	2
TOTAL ... ..	36

The requirements of one of the notices left over from 1911 were carried out by the Corporation in default of the owner.

During the last three years 85 of these privies have been converted, and the original number of 250 is thus reduced to 165. It is expected that during 1913 many more of these privies will be converted, and that it will not be very long before this system is entirely done away with.

During 1912, as during the previous year, the midden privy conversion work has been accompanied by other improvements to the properties concerned. The following table gives examples of this :—



Reference Letter	No. of Houses	No. of Closets	WORKS EXECUTED
A.	1	1	Old outbuildings demolished ; new W.C., coal place and ashbin provided.
B.	8	8	Yards and passages completely redrained.
C.	17	17	Eight of the outbuildings demolished ; new W.C.'s, coal places and ashbins provided.

#### Summary of Present Sanitary Accommodation in the Borough.

The following statement gives the approximate number of each type of closet in the Borough at the end of the last financial year ending March, 1913, as compared with the preceding three years.

	Year ending March 31st			
	1913	1912	1911	1910
Pail Closets ... ..	15,555	16,426	16,750	16,789
Fresh-water Closets ...	4,138	3,208	2,793	2,488
Waste-water Closets ...	2,481	2,481	2,482	2,471
Privy-middens ... ..	104	125	137	147

Of the 15,555 pail closets, about 6,300 are on the joint pail closet system, that is with usually one closet to two or three houses.

### THE HOUSING AND TOWN PLANNING AND HOUSING OF THE WORKING CLASSES ACTS.

As regards town planning schemes, the Borough Surveyor has supplied the following particulars in reference to two such schemes :—

#### Marland Scheme.

I.—The Council, in pursuance of arrangements made with Mr. Samuel Smethurst, of Oldham, passed a resolution on the 1st July, 1911, making application to the Local Government Board for authority to prepare a Town Planning Scheme with reference to certain land situate on the south side of Bolton Road, at Marland, and containing 63 acres or thereabouts, and after a Local Government Board Inquiry, held on the 14th July, 1911, the Board, on the 8th August, 1911, issued the requisite authority.

In pursuance of such authority the Corporation has prepared a Town Planning Scheme, and by an order of the 3rd October, 1912, the Council formally made the scheme.

On 17th December, 1912, the Local Government Board held an Inquiry locally with regard to the sanction of the Board to the scheme, when suggestions were made with a view to meeting objections on the part of several owners to provisions in the scheme. Negotiations with the owners are still in progress.

II.—The Town Planning Committee of the Council have also had under consideration the desirability of making application for authority to prepare a scheme affecting an area of about 1,300 acres on the western side of the Borough, and partly situate in the adjoining Urban District of Norden.

### The Spotland Scheme.

Another scheme, which is of considerable local interest, inasmuch as it presents new possibilities in the manner of providing housing accommodation for employees, is that of the Spotland Building Co. Ltd., which is supported by the firms of S. Turner & Co. Ltd. and Turner Bros. Ltd. of this town. As regards this scheme the houses are well arranged and of good appearance, and are well and substantially built. The Architects, Messrs. Butterworth & Duncan, have supplied the following details :—

The intention of the Spotland Building Co. Ltd. is to build 100 cottages, 32 of these have been erected and tenanted, and contracts have been let for another 29, now in course of erection.

The plan of these cottages is that usually adopted in Rochdale, and therefore presents no novel features ; the outstanding feature distinguishing them from the majority of cottages is the great amount of air space at the back ; instead of the passages being 9 feet wide they are 12 feet, and the yards, instead of having the Corporation requirements of 140 square feet have generally 350 square feet ; the distance between the back walls of the cottages in Churchill Street and Rupert Street being 60 feet, whilst the distance between the back walls of Rupert Street and Rooley Street is the great one of 122 feet.

The houses in Marlborough Street, Rupert Street and Rooley Street are grouped round an open square. This has a free circulation of air because in addition to the open side, there are five passages leading into same, thus preventing all stagnant corners.

All the cottages have small gardens at the front—38 of the houses have three bedrooms and 23 have only two bedrooms.

There are no "Twenty Rows" in the scheme, the houses being mainly in blocks of six. An attempt has been made to get rid of the depressing monotony of our Rochdale rows of cottages, where door and window follow each other in regular rotation, by making each row of six into a separate balanced composition, the doors of the end houses being at opposite ends, and the other four houses having the doors grouped into two lots of two each, which are surmounted by a widely-projected moulded stone cap carried on corbels, a gable carried up over the two doors and pierced by two windows over doors breaks up the skyline and as each block has hipped ends, the idea of brick boxes with slate lids is entirely dispelled.

### CO-OPERATIVE AND CO-PARTNERSHIP HOUSING.

In the Annual Reports 1910-1911 there were included articles dealing with some aspects of the Housing problem. In the present article an endeavour has been made to discuss the problem chiefly from the point of view of Co-operative and Co-partnership housing ; and there is here included and more fully discussed much of the subject matter of a paper read by Mr. Duncan, of this Department, at the Reform Club, December, 1912. Many of the figures used are from Ald. Thompson's Handbook on Housing.

The shortage of housing accommodation and how to overcome it is a problem which is presently engaging the serious consideration of many authorities, both Urban and Rural. Due to economic and probably other causes there has been in Rochdale, as in many other places during the past few years, a steady yearly decline in the number of houses built ; and consequently there is the tendency to overcrowding and the difficulty in dealing with such cases, while schemes of improvement which might be carried out separately or better contemporaneously as at present with the conversion scheme, are often considerably delayed or suspended when the displacement of families is involved.

How then is this shortage to be remedied ? Apart from the private builder, the three chief systems which have had their respective advocates, and have been more or less in operation in the past are :—

I.—Municipal Building under the Housing of the Working Classes Acts.

II.—Company building and Co-operative Society building (which includes building by these Societies registered under the Industrial and Provident Society Act).

III.—Private and Company building on land acquired by the Corporation.



It is interesting to briefly review the results of experiments already carried out under each of these heads.

I.—MUNICIPAL BUILDING.—The clearing of insanitary areas and the provision of workmen's dwellings under Parts I. and II. of the Housing of the Working Classes Act, 1890, have not resulted in unqualified success. The schemes under Parts I. and II. have invariably been expensive, carrying an extra burden to the rates, and have often failed in their object of re-housing those displaced; for in nearly all the re-housing schemes it was found that the actual tenants of the new dwellings were representative of the ordinary working classes of all grades, with only a sprinkling of the former tenants of the slum areas. But even under such conditions it must be admitted that in so far as sufficient new accommodation is provided, the result must be the raising to a higher level of those who wish to move upwards, and this in many cases may be considered more preferable than the immediate transition of tenants from slum areas to good and new property. But the expense involved has been enormous. For instance, the Oldham Road, Manchester, scheme cost £143 per person re-housed, and the cost of the site of  $3\frac{7}{8}$  acres worked out at £5 6s. 9d. per square yard. Costs of other schemes are shown on the following table:—

	No. of Persons Re-housed	Net Cost of Clearance	Total Cost of Re-housing	Cost of Sites per sq. yd.	Cost per Person Re-housed
MANCHESTER—Part I.		£	£	£ s. d.	£ s. d.
Oldham-road ( $3\frac{7}{8}$ acres)	1,294	97,510	88,000	5 6 9	143 0 0
Pollard-street ( $1\frac{1}{8}$ acres)	530	9,545	26,220	1 15 0	67 0 0
Part II.					
Chester-street ( $1\frac{1}{8}$ acres)	360	15,141	14,801	2 13 6	83 0 0
Pott-street ( $1\frac{1}{4}$ acres) ...	402	14,621	18,188	2 10 3	81 0 0
Harrison-street ( $\frac{3}{4}$ acre)	363	5,147	16,980	1 10 0	61 0 0
SALFORD—Part I. ....	672	50,034	31,871	{ 1 10 0 to 4 16 3	121 0 0
BIRKENHEAD—					
Part I. (1 acre) .....	90	5,800	6,705	—	138 0 0
SHEFFIELD—					
Part I. (5 acres) ...	1,122	60,000	—	1 10 0	53 0 0
BRIGHTON—					For clearance only.
Part I. (4 acres) ...	160	55,000	£8,000	2 3 5	394 0 0
					£50 re-housing only.

It must appear evident from the above table that Local Authorities in working under the above Acts have been at a serious disadvantage, inasmuch as they have been usually compelled to provide new accommodation for rehousing on very expensive sites; and one result of this, in many cases, has been the adoption of block or tenement dwellings, which do not find favour in Rochdale. Still Local Authorities and private Companies in London have housed some 250,000 persons in dwellings of this kind, although the question is often asked if such improvements in housing are commensurate with the expenditure involved. Hence, many Local Authorities have come to the conclusion that the clearing out of slum areas, with provision of dwellings for the displaced population, under the Housing of the Working Classes Acts, is so costly as to be almost prohibitive; and the result has been in many cases to endeavour to try and improve such slum areas by carrying out such general improvements as provide for better sanitation and the admission of more light and fresh air. This in itself is so far good and satisfactory; but, as in our own case, it does not solve the housing problem. In many cases it even aggravates it, for in any such improvements where more space is demanded, there is usually of necessity some displacement of families for whom some place of habitation must be found.

On the other hand, where Part III. of the Act had been adopted, and where houses have been built by Corporations, but not on slum sites, the results show that financially the schemes are practically self-supporting. The rate of interest on loans was in most cases from 3 to  $3\frac{1}{2}$  per cent., and the average return per cent. on outlay, or in other words, the amount representing



dividends which would have had to be paid to shareholders, had the undertaking been a commercial one, works out at 3.76. The actual figures providing this average for 28 Urban Districts who have proceeded in this way are as follows :—

Capital Outlay (Land at full value) ... ..	£796,880
Rents Received ... ..	£47,129
Working Expenses—	
Rates, Taxes, Water, Insurance (Approx.)	£11,931
Repairs, Lighting and Maintenance ...	£4,027
Superintendent and Sundries ... ..	£1,466
Total Working Expenses ... ..	£17,424
Net Return per cent. on Outlay ... ..	3.76

Hence there is evidence to show that, when Municipal building is undertaken under a properly organised scheme, which secures that sites and building shall not cost more to a Corporation than to a private individual or company, there is little risk of loss or burden on the rates. Still, such risks cannot entirely be removed, due to migrations of population and other factors which may cause periods of empty houses ; while at the same time Municipal building, which has to be rate-supported, is a policy, the soundness and fairness of which is still a problem around which are many opinions.

II.—COMPANY HOUSING.—It is perhaps remarkable that the greatest number of experiments in housing have been carried out not by Municipal Authorities, but by Companies and Societies. Perhaps one of the best forms of private enterprise are the Co-partnership Housing Societies, which embrace the following :—

Tenant Co-operators	Garden City tenants
Ealing tenants	Bournville tenants
Sevenoak tenants	Manchester tenants
Leicester tenants	Hampstead tenants

which provide new and good housing accommodation, and whose methods of working will be later referred to.

As an example of a different kind of Company which not only provides houses for the working classes but buys and demolishes slums, as well as renovates existing dwellings and adapts them for working class houses may be cited the Glasgow Workmen's Dwellings Company, which was established in 1890 with a capital of over £40,000, and with a dividend limited to 5 per cent. The company has carried out some valuable and interesting work, and has built and adapted houses to shelter some 3,000 persons on the block system, to which we in Rochdale are strangers. For nine years the Company paid a dividend of 4 per cent., but later this was reduced to 3½ per cent., and the reports are not so favourable as previously owing to empties due to gradual movement of tenants from central to suburban areas.

The Leeds Industrial Dwellings Company have proceeded on similar lines. Having a capital of £70,000, the Company has been able to acquire 1,000 houses on 14 acres of land, have renovated existing dwellings, and pay a dividend of from 4 to 5 per cent.

These two companies have been mentioned because it has been suggested that some such company should be formed in Rochdale.

As regards Co-partnership Housing Societies the principle involved is a good one, and as one example the Ealing Tenants Limited may be cited. Here the principle of co-partnership and co-operation is fully established, and the means adopted to secure this object are :—

- (1) To confine operations to a limited area, so that all the tenants of the Society might be neighbours who could know one another and act together.
- (2) To require of each tenant, as far as possible, that in making himself a member he should be responsible for a substantial sum in the share capital.

- (3) To secure suitable building land around a city or an industrial town, and plan the same as regards roads, number of houses to the acre, open spaces, and arrangement of buildings so as to ensure for all time healthy and cheerful houses and surroundings for the tenants.
- (4) To erect substantially-built houses, provided with good sanitary and other arrangements for the convenience of tenants.
- (5) To let the houses at rents which will pay a moderate rate of interest on capital (at present 5 per cent. on shares and 4 per cent. on loan stock) and meet working expenses, repairs, depreciation, &c., and to divide the surplus profits among the Tenant Members in proportion to the rents paid by them.

Each tenant-member's share of profits is credited to him in shares until his share capital equals the value of the house in which he lived, when it is paid in cash.

The principle of Co-partnership or Co-operation in housing is capable of much modification in practice as is seen in the basis of agreement in different Societies; and as regards their financial soundness the great progress recorded for all the various Co-operative Housing Societies may be taken as a sufficient guarantee. Taking the Ealing Tenants alone we find that the original share capital of £300 increased in six years to £8,926, and the value of their property to £62,000 for 182 members.

The method pursued by some co-operative societies of lending to its members four-fifths of the sum required at  $4\frac{1}{2}$  per cent. interest to build or buy a house can hardly be considered as embracing the original and basal principle of co-operation, as a great many of such houses sooner or later find their way back into the property market.

III.—PRIVATE OR COMPANY BUILDING ON LAND ACQUIRED BY THE CORPORATION.—In the Annual Report of last year a scheme was outlined in which the Local Authority, by taking advantage of the powers conferred on them by the Housing and Town Planning Act, might assist private builders in the matter of securing sites, and also assist land owners in the matter of developing estates on which it was desirable to build. It was shown that, provided the money for development—that is, the construction of roads and sewers, &c.—could be borrowed on certain lines, a great deal of advantage could accrue to tenants, builders and land owners, without any loss to the Corporation or any burden on the rates. The development was to take place on Garden City lines, and full control over the method of development was to be exercised by the Corporation.

Local Authorities have now such facilities given them for borrowing money and acquiring or ear-marking land that they have a great advantage over private companies and individuals in this respect.

Consequently, if it can be shown that existing or local Co-operative Societies can build and hold houses on a sound commercial basis, while at the same time securing for their members all the advantages of the principles of co-operation; and if it can be shown also that the Local Authority, without unreasonably burdening the rate-payers, may acquire the necessary land on more favourable terms, and may at the same time so direct municipal policy with regard to easy access and transit to any particular area so as to render the scheme more valuable, then the natural conclusion is that in so far as combination can be made mutually beneficial it should be adopted.

#### **Co-operative Scheme on Co-partnership Principles.**

The main features of a scheme which might be considered are as follows :—

- (1) The Borough Corporation provide land at a rent sufficient to cover repayment of loan.
- (2) The Co-operative Society or Societies as a Public Utility Society, obtain money for development as follows :—

Two-thirds required amount from Public Works Loan Commissioners, 50 years' loan at 3 per cent; one-third required amount lent out of funds of Society at 4 per cent. (at present one Society in this district lends at  $4\frac{1}{2}$  per cent.).



- (3) Membership of the Tenant Society to require member to deposit in Society's funds an amount which at 4 per cent. per annum will in interest cover the portion of ground rent allocated to the plot on which his house is to stand.
- (4) The said deposit to be considered as shares in the Tenant Society and to rank for dividend after payment of all expenses of Society and the provision of Reserve Fund, but to be held by Society as long as tenant is a member and to cover any losses.

Assuming that the Corporation borrowed money on the Instalment or Annuity principle and purchased suitable sites for the purpose of encouraging Societies to build on Town Planning principles ; and supposing one of these sites comprised 20 acres of land, to be laid out on lines approved by the Corporation, and with their assistance ; and if the number of houses to be erected per gross acre be taken at 20 (28·1 net) a suitable plot of land for each house (172 square yards) would be secured.

If the land cost £300 per acre, then the Corporation could afford to let it at £3 14s. 9d.  $\times 3 =$  £11 4s. 3d. per acre per annum, or £11 4s. 3d.  $\div 20 = 11/3$  (say 12/-) per house per annum in order to repay loan in 80 years at  $3\frac{1}{2}$  per cent. (£3 14s. 9d. per £100 is the necessary annual repayment for 80 years on the Annuity system).

Now supposing that one of our Co-operative Societies, as a Public Utility Society, borrowed from the Public Works Loan Commissioners (as they are empowered to do under the Housing and Town Planning Act) two-thirds of the money required to develop, let us say a portion of the 20 acres, and decided to build houses to let to tenant members at a rent which would cover interest and working expenses, besides allowing of a profit on tenants' shares, the question arises what would be the rent for each house, and what extra money would have to be provided.

Taking Mr. Unwin's figures of costs for development on reasonable good lines we find that the following items must be considered :—

	£	s.	d.
Cost of Roads for 20 acres, whole scheme (400 houses) ...	12,729	0	0
Cost of Roads per house ... ..	31	16	6

Our Society decides to build houses costing on average £200 each when erected in large numbers. £200 + Share of cost of Roads = £231 16s. 6d.

Supposing now that each tenant member must deposit on an average £15 in shares, which, invested at 4 per cent. per annum will produce an equivalent for ground rent 12/-. Let the parent Society now provide the one-third of the capital required at 4 per cent. For each house costing £231 16s. 6d. the following amounts in interest will be due :—

	£	s.	d.
Interest and repayment on two-thirds of £231 16s. 6d.=£154 11s. 0d. at £3 17s. 9d. %	6	0	2
Interest and repayment on one-third of £231 16s. 6d.=£77 5s. 6d. at 4%.....	3	1	10

and the following principal working expenses will be due each year :—

Share of Rates, 8/- on £10 19s. 0d. (rateable value of 7/6 house) .....	4	8	0
Water, 6 9 per quarter, per year ... ..	£1	7	0
W.C. ... ..	0	5	0
Bath ... ..	0	10	0
	<hr/>		
		2	2
		<hr/>	
		£15 12 0	

If the houses be let at an average of 7/6 weekly the rent per year will be £19 10s. 0d., leaving a margin of £3 18s. 0d. per house per annum to cover outside repairs, depreciation, insurance and reserve fund, and provide profit for distribution on the £15 shares which are already getting 4 per cent. in the Store and paying the ground rent.

Supposing for one year's working the repairs were 10 per cent. of the rent, the amount left for sharing and reserve fund, &c., would be :—

			£	s.	d.	
Balance as above	...	...	...	3	18	0
Less 10 per cent. of £19 10s. 0d., say	...	...	...	1	18	0
						<hr/>
(NOTE:—5 per cent. on £15 = 15/-)	!		2	0	0	per house
If Loan at 3 per cent. for 50 years	Balance per house	...	2	0	0	
„ 3 per cent. for 60 years	„	...	2	6	6	
„ 3 per cent. for 75 years	„	...	2	16	2	
„ 3¼ per cent. for 50 years	„	...	1	14	4	
„ 3¼ per cent. for 60 years	„	...	2	2	5	
„ 3¼ per cent. for 75 years	„	...	2	9	8	
„ 3½ per cent. for 50 years	„	...	1	8	5	
„ 3½ per cent. for 60 years	„	...	1	16	3	
„ 3½ per cent. for 75 years	„	...	2	3	2	

As the houses would be substantially built, and the cost of general repairs for a considerable time small, a reserve fund could meantime be built up. Inside repairs would fall on the tenant, and this would be an inducement to prevent undue tear and wear. A tenant member would have the option of withdrawing his dividend at regular periods, or allowing it to accumulate until it had reached an amount equal to his original deposit. Then it should be withdrawn, while the original deposit is always retained by the Society, and on which they retain a claim for any failure to pay rent or for any loss on ground rent which a tenant might cause the Society by leaving the house. The money would be refunded less the amount of loss sustained by the Society. When a tenant left but provided another tenant in substitution his share money would be returned in full. In return for 7/6 a week a tenant member could have the following advantages :

- 1.—He would be assured of security of tenure ; the house would be his own as long as he lived in it.
- 2.—The house would be substantial, in pleasant surroundings, and suited to the needs of his family.
- 3.—He would have a voice in all matters concerning the Society.
- 4.—He would share in the profits of a sound financial Society to the extent of his deposit.

As a body, the Society would have the Corporation as ground landlords, which means that they would be assured of their co-operation, not only in the original planning of the area, but also in arranging for means of access, transit and such other facilities as could be undertaken municipally. Lastly, they would be carrying into practice the intentions of those who, as founders of the system of Co-operation, had something more in their minds than the sale of articles of merchandise at such a profit as would provide for a return repayment in dividends.

The foregoing scheme embraces the underlying principles of the co-partnership societies already established, with these important differences :—

- 1.—That no person who is not a tenant member derives any monetary benefit ;
- 2.—That full advantage is taken of the facilities provided by the Housing and Town Planning Act, which was not in force when the other Societies were inaugurated.
- 3.—That the land on which the scheme is provided belongs to the ratepayers and is never a loss to them, but is eventually a source of profit.

At the same time all the benefits attained for their members by the above Societies can in equal measure be gained for the members of our proposed Society, and at a less cost.

It should not be difficult in Rochdale (the cradle of co-operation) for some such scheme, or at any rate for some scheme on equally co-operative lines to be adopted. There is even room for many such societies.





EDUCATION COMMITTEE.

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# **REPORT**

ON

**The Medical Inspection of  
School Children.**





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## Introductory.

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*Mr. Chairman, Ladies, and Gentlemen.*

The present Report, which is the fifth of its series, details the work of medical inspection carried out in Rochdale during the year ending December 31st, 1912.

The year under review has been one of further progress, and the three following important developments will bring Rochdale into the front rank of those authorities who recognise that the community cannot insure itself against physical disease unless it begins with its children. **FIRSTLY.**—The work of the School Clinic was extended in scope in March, 1912, to provide for the treatment of necessitous cases suffering from so-called “minor diseases.” Up to the end of 1912, 448 children were treated, and of that number 412 were discharged as cured. Unimportant as many of these minor diseases appear, if left untreated in childhood they may cause very serious effects in adult life. For example, running ears in children, if untreated, may result in partial or complete deafness, and thus diminish the economic value of the adult. Similarly, ulcers of the eye, if neglected, may cause scarring sufficient to seriously impair the vision. The treatment of necessitous cases at the School Clinic will prevent many such tragedies as these. **SECONDLY.**—The Education Committee had under consideration the subject of defective teeth, and, recognising that bad teeth mean bad health, the Committee has decided to establish a Dental Clinic. The cost of the clinic will be small, but the ultimate gain to the community through the diminution of the widespread ill effects due to dental disease will be very great. **THIRDLY,** and most important of all.—It has been resolved to give more definite form and to assign a definite place in the curriculum to the teaching of Personal Hygiene, and probably of Infant Care and Management as well, on the graduated lines set out in the syllabus given in last year’s report. It is very difficult for anyone not directly connected with the study of Preventive Medicine to understand to what a large extent neglect and ignorance of the elementary rules of healthy living are responsible for much of the present day physical disability and ill health. Yet such is the case, and it is now the intention, by the teaching of Personal Hygiene from an early age, to instil into the school children the practice of such elementary healthy habits as will lead to a better state of health all round and prevent many of the defects recorded in this report.

In carrying out the work of medical inspection during the year, the staff have made considerably over 28,000 inspections.

It is satisfactory again to be able to report the continued improvement in the personal cleanliness of the scholars, together with the continued increase in the number of defects remedied. The percentage of dirty heads discovered under the head cleansing scheme has dropped to 27 per cent. in 1912, as against 31.4 per cent. in 1911, 44.3 per cent. in 1910, and 62.8 per cent. in 1909; whilst 50.4 per cent. of the defects discovered had received treatment during 1912, as against 41.6 per cent. in 1911 and 24 per cent. in 1910. These figures show that medical inspection requires more of the parents instead of less, and that the opinions frequently expressed to the effect that this new departure in preventive medicine tends to “undermine the responsibility of parents” and to “weaken the fibre of the people” are not based upon any scientifically grounded conclusions.

Once again we have to compliment the school teachers upon the excellent manner in which they have performed the various duties devolving upon them in connection with the work of medical inspection.

Before proceeding with the more detailed work of the report, which has been drawn up on the lines of the previous reports, it is customary to mention here the following general statistics.

Population of Rochdale in 1912	...	...	...	...	...	...	92,530
Number of Scholars on Register during 1912	...	...	...	...	...	...	14,161
Average Attendance (including half-timers) 1912	...	...	...	...	...	...	12,071
Number of Schools—Council	...	...	...	...	...	...	18
Non-Provided	...	...	...	...	...	...	13
							<hr/>
							31
Number of Departments—Council	...	...	...	...	...	...	31
Non-Provided	...	...	...	...	...	...	20
							<hr/>
							51
Number of School Buildings—Council	...	...	...	...	...	...	18
Non-Provided	...	...	...	...	...	...	16
							<hr/>
							34

## SECTION I.

### **The general hygienic conditions of the school buildings.**

Full details of the hygienic condition of the 34 Rochdale School Buildings are to be found in the four preceding annual reports. To cover the ground a fifth time would serve no useful purpose, and it only remains in the present report to mention under this Section the improvements carried out and arranged for during the year under review.

1912 has been a year of much activity on the part both of the Education Committee and School Managers in providing increased accommodation and bringing many of the schools hygienically up to date. The improvements completed and contemplated are many and important, and will add to the comfort and benefit the health of the scholars. It is estimated that the cost of the work of these improvements, particulars of which are subjoined, will be about £19,000.

#### **Improvements Completed.**

Baillie-street ... ..	New heating installation.
Newbold Council ... ..	Extension of four class-rooms, boys' offices converted to W.C.'s. Playgrounds asphalted.
St. Mary's C.E. (Balderstone) ...	New cloak-rooms. Conversion of boys' closets to W.C.'s. Various important structural alterations to improve lighting and ventilation.
St. Peter's C.E. ... ..	Extensive structural alterations increasing accommodation and improving lighting and ventilation. Conversion of closets to W.C.'s.

#### **Improvements arranged for.**

Castleton Council, New Infants' Department ... ..	Plans approved and contract let.
Lowerplace Council School—New School ... ..	Site approved.
Parish Church Infants—New Infants School ... ..	Plans in preparation.

#### **School Desks.**

Again we would draw attention to the unsuitability of the combined desk in use in many Rochdale Schools, and to the desirability of replacing these where possible by the dual desk now universally in use. The latter type of desk is more comfortable, prevents faulty positions and tends to preserve the eyesight.

## SECTION II.

### **General survey of the scope of the work.**

#### **1.—Visits to Schools.**

124 visits have been made to the 31 schools in the Borough by the Medical Inspector for the purpose of routine examination. To this number has to be added 149 special visits in connection with outbreaks of infectious disease, making a total of 273 visits to the schools during the year by the Medical Inspector.



2.—The Children examined were selected as follows :—

**A.—For Medical Inspection in School.**

(a) Routine Cases.—Children admitted to school for the first time since the 1911 medical inspection, and those children who had reached the age of 12 years during the same period. These two groups of children are commonly known as "Entrants" and "Leavers."

(b) Special Cases.—Any other children in the school not included in the above two groups, who, in the opinion of the Head Teacher, required medical examination.

(c) Re-examination of children found defective at the previous inspection, to ascertain whether treatment had been obtained, and if so, its effect.

**B.—For Medical Inspection, at the School Clinic, of**

(a) Children who were found to require further examination than could be carried out in school.

(b) Children referred for examination as to their fitness for school by either the teachers or School Attendance Officers, owing to absence through sickness or physical defects.

(c) Children treated at the School Clinic.

(d) Children referred to Dr. Harry for defective vision.

**C.—For Inspection by School Nurses with regard to Cleanliness.**

(a) All girls in attendance at Rochdale Schools.

(b) All boys presented by the teachers.

3.—The Number of Children inspected in 1912.

**A.—Seen at School.**

During the year 4,348 children were examined in school. The relative numbers of Routine Cases, Special Cases and Re-examinations are shown in the following table, which also brings out the age and sex distribution of the Routine Cases.

**TABLE I.**

**Number of Children seen at School for Medical Inspection.**

AGE	ROUTINE CASES									Specials	Re-examined	Totals
	3	4	5	6	7	8	12	13	Totals			
BOYS ...	123	214	294	62	9	...	662	15	1,379	483	333	2,195
GIRLS ...	145	210	279	80	17	...	665	29	1,425	433	288	2,153
TOTAL ...	268	424	573	142	26	...	1327	44	2,804	916	625	4,348

**B.—Seen at the School Clinics.**

1,316 children in all were examined at the School Clinics during 1912, as against 868 in the previous year. 483 at the Examination Clinic, 448 at the Treatment Clinic, and 307 at the Eye Clinic. The 483 children made 1,303 visits to the Examination Clinic, and comprised 108 children referred for further examination than could be carried out in school and 375 children presented with regard to their fitness for school.

The 448 children treated paid 3,623 visits to the Treatment Clinic.

### C.—Seen by School Nurses.

6,213 children were seen at school by the School Nurse in respect of cleanliness. All the schools were examined three times, and the Nurses have, therefore, 18,635 inspections to their credit.

### 4.—The Number of Inspections made during 1912.

28,368 inspections were made by the whole staff in 1912, as against 24,523 in 1911 and 20,165 in 1910. This number, which does not include either the special inspections of children at school on the outbreak of epidemics, or the home visits paid by the Nurses, was made up as follows :—

Number of Inspections	by Doctor at School	...	...	...	...	4,423
"	"	by Doctor at Examination Clinic (483 examined who paid 1,303 visits)	...	...	...	1,303
"	"	at Treatment Clinic	...	...	...	3,623
"	"	by Eye Doctor at Eye Clinic	...	...	...	384
"	"	by School Nurses as to personal cleanliness	...	...	...	18,635
Total Number of inspections						28,368

### 5.—Parents and Medical Inspection.

Nine parents only objected to the examination of their children, whilst, on the other hand, quite a large number of parents communicated with the School Teacher or School Doctor desiring instant information of any defect discovered.

The following is one of the objections received :—

" SIR,

" I am the Father of the chil Arthur but I am strongly against you thuching  
 " my boy eyes in any shape or form. Leave them as they are we have kept him all  
 " the years and will keep him longer we are not going to have him suffer for your  
 " doings."

Such contumaciousness, which at the beginning of medical inspection was not uncommon, will soon be past history ; and we simply record this typical example as a milestone from which in future years one may measure to some extent the progress of medical inspection in this respect. Undoubtedly parents are coming to realise that medical inspection is neither " meddling interference " nor " idle curiosity " on the part of the Education Authorities, but is really in the interests of the health of their children. To have secured the co-operation of the parents to such a large extent is a matter of much satisfaction, for such co-operation is indispensable to the success of medical inspection which aims at the remedying of the defects discovered.

### 6.—The Time occupied by Medical Inspection.

The average time required by the Doctor for the actual inspection of each child works out at four minutes. The average time spent by the teacher in the preliminary clerical work, and by the School Nurse in the inspection as to clothing and cleanliness with subsequent recording work, cannot be much short of 15 minutes per child.

### 7.—Personal History of the Children examined.

99 per cent. of the parents filled up and returned the personal history form sent to them, as against 98.6 per cent. in 1911. From these forms the following summary of previous illness has been compiled. A knowledge of the previous illnesses of the child is a great help to the Doctor. Such information frequently directs his attention to some organ which may have been injured by a recent illness, the early recognition of which injury is of vital importance to the child. For example, if a child has recently suffered from growing pains or rheumatism, which are the most common causes of heart disease in children, a special examination is made of the child's heart to see that it is quite sound. Similarly, in the case of cough persisting after Measles or Whooping Cough, the lungs are carefully examined for the presence of commencing consumption.



TABLE II.

Summary of Previous Illnesses.

Age	No. Examined		No. of Replies		Measles		Scarlet Fever		Diphtheria		Whooping Cough		Chicken Pox		Rheumatism		Growing Pains		Other Diseases	
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
3	123	145	123	144	49	50	2	3	...	...	23	26	16	21	2	...	1	...	6	3
4	214	210	209	210	101	101	5	8	1	...	50	62	25	33	1	1	...	...	14	3
5	294	279	288	279	138	158	12	14	2	1	84	83	51	44	3	5	4	1	25	23
12	662	665	653	662	506	548	94	98	13	23	211	237	143	165	59	74	31	58	51	58
13	15	29	15	28	12	22	4	4	...	4	4	15	3	5	1	6	1	2	1	3
	1308	1328	1288	1323	803	879	117	127	16	28	372	423	238	268	66	83	37	61	97	90
Totals	2,636		2,611		1,685		244		44		795		506		152		98		187	
			(99.0)		(63.9)		(9.0)		(1.7)		(30.2)		(19.2)		(9.5)					

Figures in brackets are percentages.

## VACCINATION.

At the routine inspection note was taken of the number of children vaccinated. Of the 2,636 children seen, 831 (31.5 per cent.) showed no vaccination marks or were insufficiently vaccinated. The numbers and percentages of children with the protection of vaccination at the different ages was as follows :—

	AGE LAST BIRTHDAY.										TOTAL	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
No. Vaccinated ...	76	91	126	130	206	214	437	500	8	17	853 (65·2)	952 (71·6)
No. Examined ...	123	145	214	210	294	279	662	665	15	29	1308	1328
TOTAL ...	268 (69·8)		424 (60·4)		573 (73·3)		1327 (70·6)		44 (56·8)		2636 (68·5)	

Figures in brackets are percentages.

Not one of the many parents spoken to on this subject by the medical inspector could give any definite reason for non-vaccination.

The value of vaccination and re-vaccination as a preventative against Small-pox has been proved as well as it is possible to prove anything in this world of ours, and it does seem a pity that unthinking persons, by choosing what appears to them to be the line of least resistance for the time being, should be allowed for sentimental reasons to place themselves and the community at the mercy of this dreadful scourge. This terrible disease we have always hovering upon our borders, and with so much susceptible unvaccinated material in our midst there is bound to be a serious outbreak some day.



### SECTION III.

#### Defects discovered.

- (a) Defects found during Routine Examination of "Entrants" and "Leavers."
- (b) Defects found during examination of 916 "Special" Cases.
- (c) Result of Re-examination of 703 Defective Children.

#### (a) DEFECTS FOUND DURING ROUTINE EXAMINATION.

In the subjoined Table are shown the numbers and percentages of the defects discovered during 1912 by routine examination. The age and sex distribution of the various defects are shown in the Tables which accompany the detailed description of each defect further on in this Section.

TABLE III.

Classification	Name of Defect	1912		
		No. examined	No. with Defect	Per-centage
1—General Condition ..	Clothing and Footwear defective .....	2636	99	3·7
	Malnutrition.....	"	131	4·9
	Uncleanliness .....	"	366	13·8
	Contagious Skin Disease ..	"	74	2·8
2—Defects of Mouth ...	Carious Teeth .....	"	1557	59·0
Nose and Throat	Tonsils much enlarged ..	"	92	3·5
	Adenoids and Nasal obstruction .....	"	30	1·1
	Glands much enlarged ..	"	18	0·7
3—Defects of the Eye	External Eye Diseases..	"	65	2·5
	Defective Vision.....	1371	250	18·2
	Squint .....	2636	54	2·0
4—Defects of the Ear	Wax in Ears .....	"	95	3·6
	Discharging Ears .....	"	41	1·5
	Slightly Deaf .....	"	11	0·4
	Markedly Deaf .....	"	9	0·34
5—Defects of the Lungs and Heart .....	Bronchitis.....	"	93	3·5
	Phthisis.....	"	12	0·5
	Heart troubles .....	"	64	2·4
6—Constitutional Diseases .....	Tuberculosis of Bone and Gland .....	"	8	0·3
	Rickets .....	"	621	23·5
	Rickety Deformities ...	"	216	8·2
7—Defective Speech .....		"	17	0·6
8—Mental Condition ...	Backward .....	"	13	0·5
	Mentally deficient .....	"	2	0·1
9—Defects of Nervous System .....		"	19	0·7
10—Deformities Other than Rickets .....		"	23	0·9
11—Other Diseases and Defects .....		"	420	15·9

### CLOTHING AND FOOTWEAR.

1.7 per cent. of the children examined were insufficiently clad, and 2 per cent. insufficiently shod. One-third more boys showed these deficiencies than girls.

Speaking generally, the children were well clad, the clothes being sufficient, clean and showing a thriftiness of repair creditable to the parents. Overclothing is the rule rather than underclothing, especially in the better class schools. This is due to anxiety on the part of the parents to guard against chest colds in their children, but any tendency in this direction is more likely to be aggravated rather than diminished by the attempted remedy.

As in previous years, in the poorer schools a fair proportion of the children were wearing boots which had been discarded either by their parents or the older members of the family. This is decidedly bad for the children's feet, and must cause them much discomfort.

### MALNUTRITION.

Malnutrition occurred in 131 or 4.9 per cent. of the children examined. The percentage for this defect in 1911 was 6.6 per cent. of the children examined. In 29 children the malnutrition was directly traceable to underfeeding, and in the remaining 102 cases was associated with enlarged Tonsils, Adenoids, or other nasal obstructions, insufficiency of sleep, defective teeth and rickets.

#### Open-Air School.

A good many of the children suffering from malnutrition were really unfit for school, but, having regard to their unsatisfactory home conditions, most of them were allowed to remain in attendance.

Such children are a suitable soil for the seed of Consumption, and frequently go to swell the ranks of the physically defective in after life.

In many manufacturing towns provision has been made, with the most favourable results, for the combined treatment and education of these pre-tubercular children by the establishment of open-air schools, and once again would we urge the necessity for such an institution near Rochdale. Indeed, no scheme for the prevention and treatment of Tuberculosis would be complete without such an open-air school, which, owing to the favourable situation of Rochdale, could be erected close to the town at little expense. Simple of construction and cheap, the open-air school has passed the stage of experiment, and has come to stay. Indeed, the beneficial results obtained, both in open-air schools and sanatoria, must in the near future influence greatly the trend of school construction, for it follows that what is good for children whose health is "below par" must also tend to conserve the health of the average scholar.

### CLEANLINESS.

40 out of the 2,636 children examined were found to have their skins very dirty. No record was kept of slightly or moderately dirty children since we recognise that it is next to impossible for a busy parent to keep children punctiliously clean when the playground is often the street or unpaved court.

In this connection we would draw attention to the valuable work which has been done by the fitting-up of school spray baths, both in this country and upon the continent. A suitable opportunity for the introduction of a similar bath now offers itself in Rochdale in connection with the new school to be built in place of Lowerplace School. Personal cleanliness is not only a virtue in itself, but is the foundation of many other good qualities, since from pride and cleanliness of body invariably follow pride and cleanliness of environment.

320 (12 per cent.) of the children who underwent routine examination had nits of the head. This is less than the number recorded last year. A few of the children had vermin of the head as well as nits at the examination, and the remainder of the 320 must have had vermin shortly before the time of examination seeing that nits are the eggs of vermin.



The age and sex distribution of the clean, dirty and nitty children are shown in the following Table, together with the 1911 percentage for the purpose of comparison.

**TABLE IV.**  
Personal Cleanliness as found at the Routine Inspection.

DESCRIPTION	AGE LAST BIRTHDAY										TOTAL		1911 Percentages	
	3		4		5		12		13					
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	Boys	Girls	Boys	Girls
Clean .....	121	123	206	165	282	205	650	491	15	18	1,274 (97.4)	1,002 (75.5)	83.4	54.7
Skin Very Dirty..	...	1	5	5	7	7	7	8	...	...	19 (1.5)	21 (1.6)	9.8	5.7
Head Nitty ...	2	21	3	40	5	67	5	166	...	11	15 (1.1)	305 (22.9)	6.8	39.6
No. examined	123	145	214	210	294	279	662	665	15	29	1,308	1,328		
TOTAL .....	268		424		573		1,327		44		2,636			

Numbers in brackets are percentages.

The continued satisfactory improvement in the cleanliness of the children's heads discovered by the Nurses under the head cleansing scheme described in Table XVI. has again been maintained during 1912. Stated briefly, the number of dirty heads discovered has fallen from 62.8 per cent. in 1909 to 44.3 per cent. in 1910, 31.4 per cent. in 1911, and to 27 per cent. in 1912. There are many children who require a notice with instructions for the cleansing of verminous heads each time the Nurses visit the schools, and it is a question as to whether those parents who are the worst offenders in this respect should not now be dealt with under the Care of Children Act.

#### TEETH.

As in former years, dental caries was the most common defect found amongst the children examined, 1,537 (or 58.30 per cent.) of the 2,636 children seen for routine inspection had one or more bad teeth, and if a dental mirror and probe had been used the percentage would be very much higher.

The accompanying Table brings out the number of sound and defective teeth for boys and girls at different ages.

**TABLE V.**

DESCRIPTION	AGE LAST BIRTHDAY.										TOTAL	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	Boys	Girls
Sound Teeth .....	88	111	124	117	110	135	192	205	6	11	520	579
	(71·5)	(76·5)	(57·9)	(55·7)	(37·4)	(48·4)	(29·0)	(30·8)	(40·0)	(37·9)	(39·7)	(43·6)
1 to 3 Carious .....	26	26	55	59	104	90	335	317	6	12	526	504
4 or more Carious.....	9	8	35	34	80	54	135	143	3	6	262	245
Number examined.....	123	145	214	210	294	279	662	665	15	29	1,308	1,328
TOTAL .....	268		424		573		1,327		44		2,636	

The numbers in brackets are percentages.



The question of the preservation of the teeth is now universally regarded as one of national importance both æsthetically and industrially. Bad teeth mean bad health. This subject was fully discussed in the following Special Report to the Education Committee.

### **SPECIAL REPORT ON DENTAL CLINIC.**

In accordance with your instructions, I have pleasure in submitting for your consideration the following particulars concerning the need, the method of working and the probable cost of a School Dental Clinic for Rochdale.

#### **The Need for a Dental Clinic.**

Close upon 10,000 Rochdale scholars have been examined during the years 1909-12. Of that number 70 per cent. had defective teeth upon cursory examination, and, of the 70 per cent. 40 per cent. had four or more teeth defective. A more detailed examination, with mirror and probe, would greatly raise these percentages. Such a detailed examination in Cambridge, Strassburg and New York, showed that 2 per cent. only of the school children in these towns had a perfectly sound set of teeth. In all probability, therefore, 98 out of every 100 Rochdale children have more or less defective teeth.

The above figures show the extent to which dental disease occurs amongst the children in your schools ; and, since the condition of the teeth has a profound influence on the health of the individual, the amount of ill health directly due to bad teeth in Rochdale, both in children and adults, must be very great and wide spread. For, quite apart from the spoiling of otherwise comely features and the pain caused by defective teeth, the continuous absorption of the poisons which they manufacture into the system causes enlargement of the neck glands (which may then become tubercular), indigestion, gastric ulcer, anæmia, etc., and may even so lower the vitality that the individual becomes a suitable soil for the development of such grave maladies as consumption. These bad effects consequent upon defective teeth have to some extent been imperfectly recognised in the past, owing to their insidious onset. Nevertheless, they occur daily and render it a matter of the utmost importance that steps should be taken to ensure that a beginning at least is made with a definite scheme for the prevention and cure of dental caries.

As the Education Authorities, by the Act of 1907, are now, to a large extent, made the guardians of the health of the school children, and consequently have the children medically examined, the provision of a dental clinic, if such a clinic is to be provided, naturally falls within their province.

#### **Suggested Method of Working the Dental Clinic.**

The following suggestions have been gathered from the experience of the 40 Education Authorities in England and Wales, who, up to the end of 1912, had already made arrangements for the treatment of defective teeth in their scholars.

Three of these Authorities contributed to local dental hospitals, but as there is no dental hospital in this area such an arrangement is not feasible in Rochdale.

The remaining Authorities employed part time or whole time dentists, according to the size of their respective areas. It was found more economical, where the amount of dental work to be done was sufficient to allow of it, to appoint a whole time dentist. There is more than a sufficiency of work for a dentist in the Rochdale Schools, and I would recommend, if it is decided to establish a dental clinic, that it be placed under the charge of a whole time dentist.

The dental surgeon appointed should be fully qualified, and would be responsible for the selection as well as the treatment of the children. He ought also to be placed upon the staff of the Medical Officer, under whose general supervision he would work ; " for only in such a manner can the unity of the school medical service be preserved, and the collateral issues raised by dental questions be duly considered."

Suitable quarters for the clinic could be found at the Education Office in Baillie-street.

By selecting the children in the manner first carried out in this country at the Cambridge Dental Clinic, the maximum amount of good would be obtained with the minimum of expenditure. The Cambridge system consists of treating each year all the children with defective teeth between 7 and 8 years of age, just when the permanent teeth have erupted, and when caries first appear in these teeth. All children, treated and untreated, are periodically re-examined, so that their permanent teeth are kept in good condition during school life. In six years, therefore, all the children with defective teeth in the Borough Schools from 7 years of age upwards will have received dental treatment.

A full time dental surgeon working five days a week can be responsible for a school population of about 4,000 children. As the number of children in attendance at the Borough Schools between 7 and 8 years of age is about 1,500, the school dentist would have a considerable amount of time in which to undertake the treatment of cases occurring amongst the children outside this age.

To prevent dental caries is of even greater importance than to cure it. The best preventative is to keep the teeth clean and the gums healthy, and no scheme would be complete which does not ensure that the scholars clean their teeth thoroughly and regularly. Such provision for the care of the teeth throughout school life has, to a large extent, been made in the Scheme of Personal Hygiene submitted in last year's annual report, and now under consideration. The part of the Hygiene Scheme dealing with the care of the teeth would be under the charge of the school dentist, who might also give a few lectures to the teachers on the Care of the Teeth.

#### Estimated Cost.

The cost of equipping and maintaining a school clinic for the first year would be about £400, that sum being made up as follows :—

Salary of full time Dentist (£200 to £250)	...	...	...	£250
Equipment	...	...	...	£50
Nursing Assistance, Anæsthetics, Fillings, &c.	...	...	...	£100
				<hr/>
				£400
				<hr/>

Towards this sum the Education Department will in all probability contribute.

A few Education Authorities have adopted a scale of charges at their Dental Clinics. The following is the Reading scale :—

If the income of parents is under 24/-,	children treated free.
"	" is 24/- and under 27/6, 3d. per attendance.
"	" is 27/6 and under 30/-, 6d. per attendance
"	" is 30/- and over, 9d. per attendance.

The making of charges has generally been unsatisfactory and raises serious difficulties. Very many parents refuse to have their children's teeth treated if they have to contribute to the cost of the treatment, or wait until the teeth are very bad. In this way the object of dental inspection and treatment, namely, to discover disease in its earliest manifestations with a view to immediate treatment in order to prevent the spread of decay, is in a large measure frustrated. Further, the Education Department indicate in their 1910 Medical Inspection Report that they do not favour the institution of a scale of charges.

Such, then, is a résumé of the dental problem in your schools, and of the way in which it might be successfully combated. The expense of a clinic would be very small ( $\frac{1}{4}$ d. rate if the Committee pay the whole, or  $\frac{1}{8}$ d. rate if the Education Department pay half), and would, by the diminution of preventable and avoidable disease arising from decayed teeth, repay the town an hundredfold in the increased healthiness of the children, who in a few years will be the wage-earners and ratepayers of Rochdale.

The Education Department having agreed to defray half the cost of the proposed Dental Clinic, the Rochdale Borough Council has adopted the foregoing scheme, and the establishment of the Clinic is now, we believe, merely a question of making the necessary arrangements.



### TONSILS, ADENOIDS, AND NECK GLANDS.

101 children (3·8 per cent.) had their tonsils so markedly enlarged as to require their removal, and this enlargement was in the majority of cases aggravated by the presence of adenoids. In addition, 30 children (1·1 per cent.) suffered from adenoids or other forms of nasal obstruction, without any marked tonsillar enlargement.

Marked enlargement of the neck glands occurred in 18 children (0·68 per cent.). This condition was associated with broken-out heads, running ears, enlarged tonsil, adenoids and defective teeth. The number of slightly enlarged glands due to the same causes was very large.

The age and sex distribution of these conditions, together with the number of cases of slightly enlarged tonsils, is shown in the accompanying Table.

TABLE VI.

	CONDITIONS	AGE LAST BIRTHDAY.										TOTAL	
		3		4		5		12		13			
Tonsils and Adenoids		B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
	Tonsils, normal .....	100	130	174	181	230	221	582	562	14	26	1,100 (84·0)	1,120 (84·3)
	Mouth Breathers from—												
	(a) Tonsils, enlarged	17	12	23	18	48	40	51	73	...	2	139 (10·6)	145 (10·9)
	(b) Tonsils, much enlarged .....	6	3	15	10	12	13	19	23	1	...	53 (4·0)	49 (3·7)
	(c) Adenoids, or other Nasal Obstruction	...	...	2	1	4	5	10	7	...	1	16 (1·2)	14 (1·05)
Glands													
	Glands, normal .....	113	139	196	196	260	258	618	606	15	26	1,202 (91·8)	1,225 (92·2)
	Glands, palpable .....	9	6	17	13	31	17	42	53	...	3	99 (7·5)	92 (6·9)
	Glands, much enlarged	1	...	1	1	3	4	2	6	...	...	7 (0·5)	11 (0·8)
	Number Examined .....	123	145	214	210	294	279	662	665	15	29	1,308	1,328
	TOTAL .....	268		424		573		1,327		44		2,636	

The numbers in brackets are percentages.

The presence of adenoids and much enlarged tonsils has far-reaching consequences upon the health of the child, and subsequently of the adult. These conditions cause mouth breathing, deafness, middle ear disease, enlarged glands, etc. Further, on account of the mouth breathing, the air entering the lungs in such children is neither heated nor purified, and as a consequence these children suffer from chronic bronchitis and other chest complaints, with imperfect development of the chest.

Fortunately the removal of adenoids and enlarged tonsils is easily effected; but if the full benefit is to be derived from the operation this must be followed up by daily nasal breathing exercises. Many parents have delayed having their children operated on for these conditions because they think their children are too delicate. This delicacy, however, is due to the presence of the adenoids and enlarged tonsils, and after their removal the children rapidly gain in health.



### DEFECTS OF THE EAR.

The following are the defects of the Ear discovered during routine examination :—

- (a) EXCESS OF WAX.—95 cases (3.6 per cent.). Instructions were given to the parents of these children to have the ears syringed out.
- (b) DISCHARGING EARS.—41 cases (1.5 per cent.). The treatment of this very serious condition, can, on account of its chronicity, best be carried out at the School Clinic.
- (c) SLIGHTLY DEAF.—11 cases. The deafness in these cases was due to nasal or eustachian obstruction.
- (d) MARKEDLY DEAF.—9 cases. None of these cases were so deaf as to be unable to benefit by attendance at school. The deafness in 5 cases was due to antecedent middle ear disease, in 3 cases to nasal or eustachian obstruction, and in 1 case congenital.

The age and sex distribution of the above conditions are shown in the subjoined Table.

TABLE VII.

	AGE LAST BIRTHDAY										TOTAL	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
Excessive Wax .....	2	2	1	2	1	5	35	45	1	1	40 (3·0)	55 (4·1)
Discharging Ears .....	4	4	3	2	2	2	17	5	2	...	28 (2·1)	13 (0·9)
Slightly Deaf .....	...	...	1	1	2	...	4	3	...	...	7 (0·5)	4 (0·3)
Deaf .....	...	...	...	...	1	...	2	6	...	...	3 (0·2)	6 (0·4)
Good Hearing .....	117	139	209	205	288	272	604	606	12	28	1,230 (94·0)	1,250 (94·1)
Number Examined .....	123	145	214	210	294	279	662	665	15	29	1,308	1,328
Total .....	268		424		573		1,327		44		2,636	

The numbers in brackets are percentages.

### EXTERNAL EYE DISEASES, INCLUDING SQUINT.

Only 65 children (2.5 per cent.) had external eye diseases. The most common form of external eye diseases was Blepharitis, or inflammation of the margins of the eye lids, a condition which is usually associated with filth, or due to some error of refraction.

54 children (2 per cent.) had marked squints, all due to errors of refraction. These cases were referred to Dr. Harry for spectacles. Many parents do not realize the absolute necessity in such cases for the provision of suitable spectacles, for without spectacles the vision of the squinting eye is lost from disuse. The spectacles frequently cure the squint altogether, but, if not, they at least conserve the vision of the affected eye, a matter of the greatest importance to the child should the other become blind through accident or otherwise later in life.

The following Table shows the age and sex incidence of these two conditions.

TABLE VIII.

	AGE LAST BIRTHDAY.										TOTALS	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
Number examined	123	145	214	210	294	279	662	665	15	29	1,308	1,328
Numbers suffering from—												
External Eye Diseases .....	4	6	6	5	8	10	13	12	1	...	32 (2·4)	33 (2·5)
Squint .....	2	4	1	5	11	12	8	10	...	1	22 (1·7)	32 (2·4)

Numbers in brackets are percentages.

## VISION.

The vision of the 12 and 13 year old children only was tested at the routine examination. 250 children (18.2 per cent.) had distinctly bad vision, and in 471 (34.4) per cent. the vision was subnormal. Such cases of bad vision as required spectacles were referred to Dr. Harry.

The subjoined Table shows the age and sex distribution of these cases, along with the number of children with defective eyesight who had already been provided with glasses at the time of the examination.

TABLE IX.

Age	Number examin'd		(a) Vision Normal $\frac{6}{6}$		(b) Vision Sub-normal $\frac{6}{9}$ to $\frac{6}{12}$		(c) Vision Bad $\frac{6}{18}$ to $\frac{6}{60}$		(d) Glasses worn by groups b and c		(e) Children referred to Dr. Harry			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
12 .....	662	665	338	288	221	235	101	139	25	44	55	107	B. G. Specials Unclassified for Age.	
13 .....	15	29	8	8	4	11	3	7	1	...	5	11		
	677	694	346 (51.1)	296 (42.6)	225	246	104 (15.4)	146 (21.0)	23	44	60	118	96	89
TOTAL .....	1,371		642 (46.8)		471		250 (18.2)		70		363			

Numbers in brackets are percentages. 5 years not included.

## DEFECTS OF HEART AND LUNGS.

**Bronchitis.**

93 children (3.5 per cent.) of the children examined had chronic bronchitis. In 39 cases the bronchitis was secondary to mouth breathing, either habitual or due to enlarged tonsils and adenoids, and in 32 cases was secondary to rickets. The Bronchitis in the remaining 22 cases was of the primary variety.

**Phthisis** (Tuberculosis of the Lungs).

12 children (0.45 per cent.) were found to be suffering from this disease—10 cases in the very early stage and 2 in a more advanced stage of Consumption.

**Heart.**

In 64 children (2.4 per cent.) organic heart lesions were discovered. 43 of the lesions were slight and gave rise to no untoward symptoms. In the remaining 21 cases, however, the lesions were more extensive, or so imperfectly compensated as to cause symptoms of distress upon violent exertion. In the latter type of case instructions were given to the teachers excluding from drill or regulating drill and physical exercises, and those parents who were unaware of the existence of the heart trouble in their children were interviewed by the School Medical Officer.

The age and sex distribution of the three conditions were as follows :—

**TABLE X.**

DISEASE	AGE LAST BIRTHDAY.										TOTAL	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	Boys	Girls
Bronchitis .....	18	10	9	8	13	16	9	9	...	1	49 (3·7)	44 (3·3)
Phthisis .....	...	...	...	...	...	...	6	5	1	...	7 (0·5)	5 (0·4)
Heart Disease(Organic)	4	3	7	5	10	7	14	13	...	1	35 (2·6)	29 (2·2)
Number examined ...	123	145	214	210	294	279	662	665	15	29	1,308	1,328
TOTAL ...	268		424		573		1,327		44		2,636	

The numbers in brackets are percentages.

**TUBERCULOSIS.**

In view of the provision made in the Insurance Act for the treatment of Tuberculosis, which is the most widely-spread infectious disease throughout the community, the following figures showing the number of cases of Phthisis and Surgical Tuberculosis amongst children of school age have been compiled from the notifications and certificates of the local medical men.

Phthisis ... ..	24 cases
Surgical Tuberculosis (7 of Glands, 4 of Bone, 1 Abdominal) ...	12 ..

To this number has to be added the 12 cases of Phthisis discovered during routine examination, making a total of 36 cases of Phthisis and 12 cases of Surgical Tuberculosis amongst the school population of 14,161. By the latest methods of diagnosis, such as the Tuberculin Reaction, these numbers would in all probability be increased. The cases of Surgical Tuberculosis could best, in our opinion, receive treatment and education at some centre serving a large area, under the direction of Tuberculosis and Orthopedic Specialists. The 36 Phthisical cases could be treated locally.

**RICKETS AND RICKETY DEFORMITIES.**

156 children (5.9 per cent.), upon examination, were found to be suffering or to have suffered from Rickets in a minor degree, and 196 children (7.4 per cent.) to such a degree as to cause marked deformities. The age and sex distribution of these cases were as follows :—



TABLE XI.

	AGE LAST BIRTHDAY.										TOTAL	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	Boys	Girls
Rickets ... ..	18	18	23	11	29	13	19	13	7	5	96 (7·3)	60 (4·5)
Rickety Deformities ...												
Bow-leg ... ..	3	6	12	5	6	7	3	4	...	...	24	22
Knock-knee ... ..	1	1	...	...	4	3	31	...	...	...	36	4
Rickety Chest ... ..	2	...	6	2	15	4	42	12	...	...	65	18
Other Forms ... ..	...	...	1	2	6	2	7	9	...	...	14	13
Number suffering from Rickets and Deformities ... ..	24 (19·5)	25 (17·2)	42 (19·6)	20 (9·5)	60 (20·4)	29 (10·4)	102 (15·4)	38 (5·7)	7 (46·6)	5 (17·2)	235 (17·9)	117 (8·8)
Number examined ... ..	123	145	214	210	294	279	662	665	15	29	1308	1328
TOTAL ... ..	268		424		573		1,327		44		2,636	

Figures in brackets are percentages.

The above Table takes into account only well-marked cases of Rickets. If, however, slight but undoubted cases had been included as well, the percentage would be very much higher.

The cases of Rickets were fairly evenly distributed over all classes of schools, but the deformities occurred chiefly in those schools attended by children from the poorer quarters of the town.

Rickets is a preventable disease, which manifests itself from the first six months to the end of the second year of life. The disease is due to bad infant feeding, and especially when such bad feeding is accompanied by want of fresh air and sunlight. Breast-fed babies seldom suffer from Rickets, but those children who through necessity or ignorance have been deprived of a sufficiency of fresh milk and given large quantities of food in which starch has taken the place of the milk fat are exceedingly likely to develop the disease.

Bottle feeding of infants is the rule in Rochdale. Amongst the better-class working people there is too common use of patent foods and condensed milks, which probably accounts for the prevalence of minor cases of Rickets in the better-class schools. In the poorer-class districts, where the infants are nursed out owing to the mothers having to work in the mills, the infant feeding is in very many cases deplorable.

It is evident from the above Table that Rickets tends to a natural cure, as the percentages are reduced amongst the seniors. This is fortunate. But after making due allowance for such tendency to natural cure, this preventable disease exacts a continuous heavy toll through the physical deformities, and also probably through the mental backwardness which follow in its train. The prevention, early recognition and correction of Rickets is therefore of primary importance both from the physical and mental standpoints.

The prevention of Rickets, like its kindred problem the prevention of Infantile Mortality, can only be effected by care and right management in infancy. Unfortunately the knowledge of such care and management is seldom acquired in very many homes. By the teaching of " Infant Care and Management " to the elder school girls, who are the mothers of the next generation, on the lines laid down in the syllabus given in last year's Report, we might reasonably hope in time to diminish not only the high rate of infantile mortality but also the large amount of unnecessary ill-health and physical suffering, including Rickets, caused by neglect in infancy.

Further, invaluable work could be done by the setting up of Crèches for the care and proper feeding of infants whilst these mothers are at work ; and such institutions would also serve as centres for instruction on infant care to the mothers. The Crèches would be largely, if not entirely, self-supporting, and their municipalisation would be in the interests of the health of the community.

**DEFECTIVE SPEECH.**

17 children (0.64 per cent.) had defects of speech. Of this number 4 were stammerers, and will receive instruction at the Cure of Stammering Class. 7 children had "infantile" speech, which will become normal as the children grow older. 5 children had a lisp, and 1 a burr.

**MENTALLY DEFECTIVE CHILDREN.**

18 (0.7 per cent.) of the 2,636 children examined were mentally defective. Of that number 6 were entirely uneducable and fit for an imbecile home. The remaining 12 were possibly educable to some extent at a special class or school for mentally defective children.

The age and sex distribution of these cases were as shown in the subjoined Table.

**TABLE XII.**

	AGE LAST BIRTHDAY.										TOTAL	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	Boys	Girls
Feeble-minded Children												
I.—Backward ...	0	1	1	0	2	0	4	3	1	0	8 (0·6)	4 (0·3)
II.—Mentally Defect...	0	0	0	0	1	1	0	3	0	1	1 (0·1)	5 (0·4)
Number examined ...	123	145	214	210	294	279	662	665	15	29	1,308	1,328
TOTAL ...	268		424		573		1,327		44		2,636	

(Figures in brackets are percentages.)

In the absence of other provision for these mentally defective children, the majority have, where possible, been allowed to attend the elementary schools, with no real educational benefit to themselves, and their presence has been the cause of much anxiety to the teachers. The long promised legislation to deal with the care of these mentally deficient children in a rational manner would now appear to be near accomplishment.

**DEFORMITIES OTHER THAN RICKETY DEFORMITIES.**

16 children (0.60 per cent.) suffered from the following deformities :—

Cleft Palate ...	4 cases	Spinal Curvature (lateral) ...	8 cases
Deflected Nasal Septum ...	9 "	Club Foot ...	2 "
		Wry Neck ...	2 "

**HEIGHTS AND WEIGHTS.**

The average heights and weights of the children weighed during 1912 are given in the following Table, together with the averages for 1908-10-11 inclusive, for the purpose of comparison.

**TABLE XIII.**

	CHILDREN 5—6 YEARS OF AGE				CHILDREN 12—13 YEARS OF AGE			
	Boys		Girls		Boys		Girls	
	Height (inches)	Weight (lbs.)	Height (inches)	Weight (lbs.)	Height (inches)	Weight (lbs.)	Height (inches)	Weight (lbs.)
Av. for 1908-1910 incl.	40.62	38.89	39.9	36.64	53.82	70.11	54.29	71.06
Averages for 1911.....	40.59	38.8	40.75	38.15	53.90	70.05	54.15	70.80
Averages for 1912.....	40.65	37.5	40.54	38.8	54.75	70.5	54.88	70.1



## (b) DEFECTS FOUND AMONGST THE "SPECIAL" CASES.

This group comprises all children attending school, not included amongst the "entrants" and "leavers," who, in the opinion of the Head Teacher, require medical inspection. The inspection of "specials" is of primary importance. Apart from the obvious gain which ought to result from the treatment of the defects discovered, the examination of these children ensures that pressure can with more certainty be put upon the parents of children who habitually keep their children from school without sufficient reason; that the feeble are exempted from tasks beyond their strength; and may frequently prevent such misunderstandings as the inadvertent scolding or punishment of a child for inattention, which is not inattention but deafness due to wax in the ears or to adenoids.

916 "Specials" were presented for examination during the year. 147 suffered from no obvious defect, and the conditions found in the remaining 769 were as follows:—

TABLE XIV.

## Classification of "Special Cases" Defects.

Classification	Name of Defect	Number
1.—General Condition .....	Uncleanliness .....	6
	Contagious Skin Diseases .....	23
2.—Defects of Mouth, Ear and Nose .....	Enlarged Tonsils (much) .....	30
	Adenoids and Nasal Obstruction .....	44
	Mouth Breathers .....	120
	Enlarged Neck Glands .....	2
3.—Defects of the Eye .....	External Eye Diseases .....	31
	Defective Vision .....	266
4.—Defects of the Ears and Hearing .....	Wax in Ears .....	5
	Discharging Ears .....	39
	Defective Hearing.....	34
5.—Defects of Heart and Lungs	Heart Disease (Organic) .....	3
	Bronchitis .....	3
6.—Defects of Nervous System ...	Chorea.....	1
	Other Defects .....	8
7.—Mental Defects .....	Backward .....	14
	Mentally Deficient .....	17
	Epileptic .....	4
8.—Constitutional Diseases .....	Rickets .....	9
	Rickety Deformities .....	8
	Tuberculosis of Skin and Glands .....	2
9.—Deformities other than Rickets .....	Cleft Palate—Deflected Septum, Club Foot, Wry Neck, &c. ....	6
10.—Defective Speech .....		52
11.—Other Diseases .....	Sore Throat .....	5
	Chicken-pox .....	3
	Anæmia .....	2
	Unclassified .....	32



**(c) CHILDREN RE EXAMINED.**

Of the 1,089 children due for re-examination, 625 were seen. This discrepancy is explained by the fact that a large proportion of the children examined at the age of 12 became full-time workers at the age of 13, with the result that little or no opportunity for re-examination exists. A special endeavour was made to have the largest possible number examined under these circumstances, and 625 children were re-examined as against 340 in 1911.

In the following Table are shown the defects treated and untreated of the 625 children re-examined.

**TABLE XV.**

Report on 625 children re-examined.

Defects from which these 625 children suffered	Total Number of Defects	Number Treated, and :—		Number not Treated
		Better	Cured	
Skin Diseases .....	35	22	6	7
Teeth .....	244	89	7	148
Nose and Throat—				
Enlarged Tonsils .....	131	32	41	58
Nasal Obstruction.....	53	27	4	22
External Eye Diseases .....	41	20	6	15
Vision .....	18	10	...	8
Ears—Purulent Discharge .....	37	16	2	19
Wax .....	22	11	1	10
Heart .....	4	3	...	1
Lungs .....	...	...	...	...
Rickety Deformities .....	40	22	2	16
Other Diseases .....	19	13	...	6
<b>TOTAL .....</b>	<b>644</b>	<b>265</b>	<b>69</b>	<b>310</b>

The 1912 percentage of 49·6 for cases untreated is a decrease of 8·8 per cent. on the 1911, and of 26·4 per cent. on the 1910 percentage. This shows that steady progress is being made, but much still remains to be done in this respect.

**SECTION IV.**

### **Review of the methods available for the prevention and treatment of disease.**

Under this heading fall (a) The Work of the School Nurses ; (b) The Work of the School Clinic ; (c) The Feeding of School Children ; and (d) The Control of the Spread of Infectious Diseases in Elementary Schools.

**(a) THE WORK OF THE SCHOOL NURSES.**

By carrying out the Head Cleaning Scheme and making Home Visits, the School Nurses play a most important part in the work of medical inspection. The enormous improvement in the cleanliness of the children during the last three years speaks well for the energy and enthusiasm of the nursing staff. An important factor, and one which must not be overlooked, contributing to the great increase in cleanliness shown by the figures given below, is the hearty spirit of co-operation and sympathy which exists between the Teachers and Nurses.

**Head Cleansing.**

The School Nurses have visited all the schools three times during 1912. 18,635 inspections of girls' heads were made during these visits, and the relative proportions of clean and dirty heads discovered at each visit are shown in the subjoined Table. 459 verminous children were followed up in their homes.

TABLE XVI.

Personal Cleanliness as found by School Nurses at the Inspections of all the Girls in each School.

1911	Number of girls examined	Number Clean.	Number Verminous and Nitty	Number of Cards sent	Number of Homes Visited
1st Inspection .....	6,194	3,968 (64·0)	2,226 (35·9)	1,524	132
2nd Inspection .....	6,267	4,839 (77·2)	1,425 (22·7)	1,188	153
3rd Inspection .....	6,174	4,780 (77·4)	1,394 (22·6)	1,027	174

Numbers in brackets are percentages.

The gain in cleanliness shown by the figures for the last four years is as follows :—

Year 1909 ... ..	62·8	per cent.	had nits or vermin,	and 37·2	per cent.	were clean
„ 1910 ... ..	44·3	„	„	55·7	„	„
„ 1911 ... ..	31·4	„	„	68·6	„	„
„ 1912 ... ..	27·0	„	„	73·0	„	„

and when it is mentioned that the standard for cleanliness is considerably higher now than in 1909 (probably from 10 per cent. to 15 per cent. higher) you will see that there is all the more reason for congratulation.

#### Home Visits.

1,013 homes have been visited by the Nurses during the year for the purpose of making more effective the work of medical inspection. The Nurses explain the necessity of obtaining medical advice ; stimulate the parents to greater cleanliness ; and also assist and advise the mother when domestic attention rather than medical treatment is required. Of the 1,013 visits made

469	were concerning	Dirty Heads
171	„	Contagious Skin Diseases
68	„	Provision of Spectacles
266	„	Defects discovered at inspection
39	„	Infectious Diseases

#### (b) THE WORK OF THE SCHOOL CLINIC.

Through the extension of the scope of the School Clinic this year to provide for the treatment of necessitous scholars suffering from the most common communicable school diseases, your School Clinic now comprises the following departments, viz. :—The Inspection Clinic, The Eye Clinic, and The Treatment Clinic.

#### Hours of Attendance.

The Inspection Clinic is held from 2 to 5 o'clock every Monday afternoon on which the schools are open, and during these hours the School Doctor, assisted by one of the School Nurses, is in attendance.

The Eye Clinic is held every Friday afternoon, from 2 to 5 o'clock, and is conducted by Dr. Harry, the Eye Specialist, who is assisted by the other School Nurse.

The Treatment Clinic has been held every morning, at 9-0 (Sunday of course excepted) and the work of treatment is carried out by both School Nurses, under the direction of the School Doctor. Each Nurse treats the cases coming from the schools allotted to her.

### THE WORK DONE AT THE INSPECTION CLINIC.

The Inspection Clinic has been established for the following purposes :—

- (a) The examination of children as to their fitness for school, or as to their fitness to undertake physical exercises, swimming, &c.
- (b) For the further examination of scholars referred by the Doctor from the school inspection.
- (c) The supervision of children suffering from infectious diseases and of "Contacts."
- (d) The periodic supervision of Phthisis.
- (e) The examination of candidates for admission to Special Schools, *i.e.*, Deaf and Dumb, Mentally Defective, &c.

During 1912, 483 children attended the Inspection Clinic, and made 1,303 visits. 108 of this number were cases referred for further examination than could be carried out in school.

The remaining 375 children seen at the Clinic were sent by the Teachers, Nurses, and Attendance Officers, and a few were brought by the parents on their own initiative. The diseases these children suffered from were :—

Ringworm	...	...	118 cases	Other Skin Diseases	...	18 cases
Impetigo	...	...	43 "	External Eye Diseases	...	36 "
Scabies	...	...	11 "	Other Diseases	...	43 "
Eczema	...	...	97 "	Defective Vision	...	82 "

#### Ringworm.

51 cases of Ringworm of the scalp and 67 cases of Ringworm of the body were seen at the Inspection Clinic in 1912. The average time each case of Ringworm of the scalp was excluded from school was 24 days, as against 35 in 1911. The reduction in the period of exclusion for Scalp Ringworm was effected (a) by the treatment at the School Clinic of necessitous cases ; and (b) by the more frequent examination of all cases of Ringworm to see that they were under treatment, and that the treatment recommended by the Doctors was being efficiently carried out.

### THE WORK DONE AT THE EYE CLINIC.

514 children were referred to Dr. Harry, and of that number 129 did not come, for various reasons. A good proportion of the 129 has already been examined during 1913.

Of the 384 children actually examined by Dr. Harry, 357 required and 28 did not require spectacles.

The following Table gives the age distribution of the children treated.

TABLE XVII.

Age Summary of Eye Cases.

	AGE LAST BIRTHDAY.													TOTAL
	3	4	5	6	7	8	9	10	11	12	13	14	15	
Number examined ...	...	...	34	20	39	31	46	48	41	116	9	...	...	384

As was to be expected from the fact that only the "leavers" had their vision tested at the routine examination, the largest number requiring spectacles occurs amongst the 12 year old children. All the cases below 12 requiring spectacles were presented by the teachers as "special"



cases, and the selection of such a large number of cases (representing probably the majority of cases of defective vision in the rest of the school) reflects great credit on the observation of the teachers.

In the following Table are classified the particular defects of vision discovered by Dr. Harry.

**TABLE XVIII.**

**Defects found amongst the Eye Cases examined by Dr. Harry.**

DEFECTS	AGE AND SEX						All Ages of each sex		TOTAL
	3 and 4 years		5 to 9 years		10 to 13 years				
I.—REFRACTION ERRORS—	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
Hypermetropia .....	...	...	29	23	20	29	49	52	101
Myopia .....	...	...	9	3	8	16	17	19	36
Simple and Compound Hyper- metropic Astigmatism.....	...	...	35	38	34	52	69	90	159
Simple and Compound Myopic Astigmatism .....	...	...	3	10	6	11	9	21	30
Mixed Astigmatism .....	...	...	6	4	8	13	14	17	31
Total Number with Refraction Errors .....	...	...	82	78	76	121	158	199	357

#### DR. HARRY'S REPORT.

" 357 children have been examined, showing an increase of 71 over the previous year.

" Hypermetropia and Hypermetropic astigmatism still form the chief defects, the former " being 30 per cent. and the latter 73 per cent.

" Following on the lines of the most recent ophthalmic research more attention is being " paid to the influence of heredity in such conditions as Myopia, Myopic astigmatism, and " Mixed astigmatism. Where a similar error is present in one or both parents special pre- " caution is taken and detailed instruction given.

" It has been proved beyond doubt that the wearing of the correcting glasses will retard " the progress of the disease. The defects here alluded to amounted to about 27 per cent.

" The number of cases showing fundus disease have decreased. Cases of spasm of " accommodation (10) have been more numerous. The conditions occur in nervous children " who are doing extra study. The chief symptom is a persistent headache on trying to do " any close work, and the treatment is rest, ocular by means of glasses, and by physical.

" 82 cases of squint were treated. The personal histories of the children are inquired " into, and advice is given on collateral defects, which are likely to accompany or follow " the squint of the eyes.

#### THE TREATMENT CLINIC.

The Clinic has been established for the treatment of Ringworm, Impetigo, Itch, External Eye Diseases, and Running Ears, etc., all of which conditions interfere to such a large extent with school attendance, and are readily communicable to other children.

The cases have been selected by the Doctor, Nurses, and Teachers, the final selection in each case being made by the Doctor. Only necessitous cases and cases likely to benefit by treatment have been admitted to the clinic.

The Clinic was opened in March, 1912, and up to the end of the year 448 children, who paid 3,623 visits to the Clinic, were treated. 412 were cured. The numbers seen each month were as follows :—

Month	No. of New Cases	No. of Visits	No. discharged
March ... ..	12	42	6
April ... ..	8	106	17
May ... ..	60	381	24
June ... ..	68	470	58
July ... ..	66	427	78
August ... ..	28	362	33
September ... ..	47	257	48
October ... ..	56	503	54
November ... ..	68	657	61
December ... ..	35	418	33
	448	3,623	422

The diseases from which the children received treatment were :—

	Cases.
Impetigo ... ..	126
Eczema ... ..	22
Dirty Heads ... ..	19
Running Ears ... ..	35
Inflamed Eyelids, &c. ... ..	71
Ringworm ... ..	59
Scabies ... ..	15
Septic Wounds, Ulcers &c. ... ..	48
Minor Accidents ... ..	33
Other Ailments ... ..	20

The Clinic has worked smoothly, and there has not been one single case of conflict with any of the medical men in the district.

### (c) PROVISION OF MEALS.

The Board of Education having placed the general supervision of this branch of their work in the hands of the School Medical Department, it is now the duty of the School Medical Officer to report annually on the work undertaken in connection with the provision of meals for school children.

During 1912, 374 school children have been served with 19,801 dinners, this being the only meal which the Committee deem it necessary to provide. The total cost was £165 0s. 2d., which works out at 2d. per meal.

The number of children attending and the number of meals supplied each month were :—

Month	Number of children	Number of meals
January ... ..	166	2,655
February ... ..	175	2,283
March ... ..	166	3,005
April ... ..	191	3,005
May ... ..	121	1,633
June ... ..	68	787
July ... ..	76	1,250
August ... ..	71	327
September ... ..	54	880
October ... ..	73	1,178
November ... ..	108	1,449
December... ..	78	1,349
		<hr/>
	TOTAL ...	19,801

The children are selected in the first instance by the Head Teacher, who forwards the names to the Education Secretary.

Enquiries as to circumstances and means of the parents of the selected children are immediately made by the Attendance Officers.

The particulars obtained are then submitted to the School Canteen Committee, who decide formally as to the advisability of providing dinners.

No scale of poverty qualifying for free meals has been adopted, the particular circumstances of each case being carefully considered.

The dinners were supplied by eight refreshment Caterers, at eight convenient centres throughout the Town. Each of these centres has been visited, and the food examined by the School Medical Officer.

#### (d) THE CONTROL OF THE SPREAD OF INFECTIOUS DISEASES IN ELEMENTARY SCHOOLS.

1912 has been the year of infectious diseases amongst school children in Rochdale, the town having been visited by outbreaks of Scarlet Fever, Measles and Whooping Cough.

This is the first year for which we have any record of the number of cases of the non-notifiable infectious diseases (viz., Measles, Whooping Cough, Chicken-pox, Mumps, &c.), and the figures given have been obtained through the putting into operation during 1912 of the complete scheme for the control of infectious diseases detailed in the 1910 report. The scheme provides a thorough system of notification of all infectious diseases between the Medical Officer of Health, the Head Teachers, and the School Attendance Officers, and also provides for the exclusion of infected children and contacts for definite periods.

Under this new scheme no less than 2,380 cases of infectious diseases were notified by the teachers during 1912, as follows :—

Scarlet Fever	...	...	259 cases	Chicken-pox	...	...	405 cases
Diphtheria	...	...	23 „	Mumps	...	...	58 „
Measles	...	...	1,271 „	Ringworm	...	...	85 „
Whooping Cough	...	...	277 „	Ophthalmia	...	...	2 „

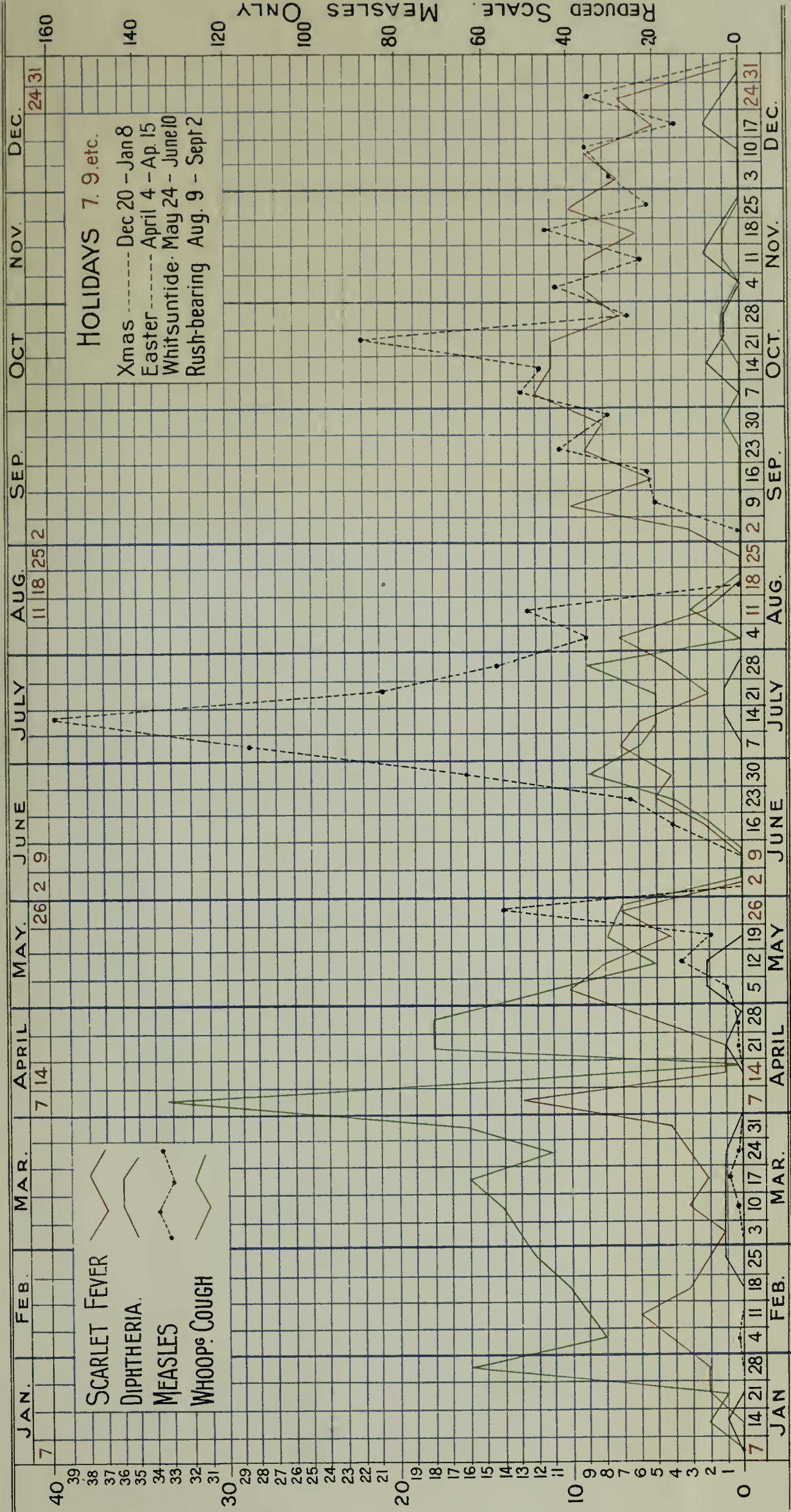
The figures for Scarlet Fever and Diphtheria are correct, the teachers' figures having been checked with the notifications from the local Doctors, these diseases being compulsorily notifiable. The other figures are approximate.

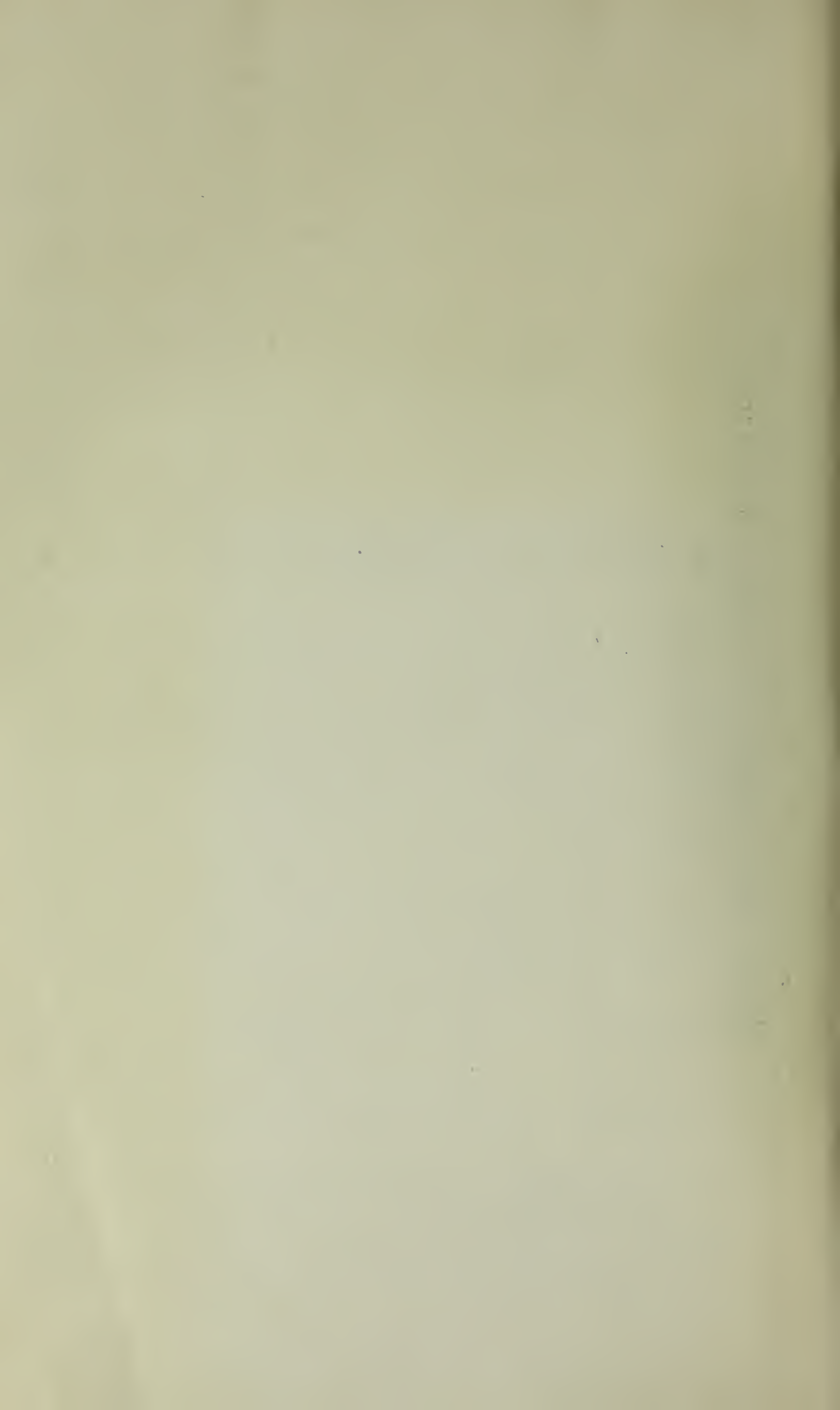
The weekly incidence of these various diseases is shown by the following table, and the figures for Scarlet Fever, Diphtheria, Measles and Whooping Cough have been charted out on Chart 1.

The curves on the Chart show that Whooping Cough was most prevalent in the Spring months of the year ; Measles during Mid-Summer and Autumn ; and Scarlet Fever and Diphtheria during the latter four months of the year. The curves correspond to the seasonal prevalence of these diseases over other parts of the country. The Chart also shows a distinct drop in the number of cases of Measles, Scarlet Fever and Whooping Cough after each closing for school holidays.



# WEEKLY NOTIFICATION OF CERTAIN INFECTIOUS DISEASES DURING 1912.





**CASES OF INFECTIOUS OR CONTAGIOUS DISEASE NOTIFIED DURING THE  
YEAR 1912 (Shewn Weekly).**

Week ending	DISEASE							
	Scarlet fever	Diph- theria	Measles	Wh'ping Cough	Chicken Pox	Mumps	Ring- worm	Ophthal- mia
January 7th ...	...	...	...	...	...	...	...	...
" 14th ...	...	1	...	2	9	2	1	...
" 21st ...	2	...	...	1	1	1	2	1
" 28th ...	2	...	...	16	7	1	1	...
February 4th ...	4	...	1	8	3	1	1	...
" 11th ...	6	...	...	9	5	2	4	...
" 18th ...	3	...	...	10	2	2	2	...
" 25th ...	2	1	...	12	...	2	2	...
March 3rd ...	1	1	...	13	5	...	2	...
" 10th ...	3	1	1	14	2	2	...	...
" 17th ...	2	1	3	16	...	...	2	...
" 24th ...	3	1	1	11	3	...	2	...
" 31st ...	4	...	...	16	1	...	1	...
April 7th ...	13	...	...	33	1	...	1	...
" 14th ...	1	...	...	...	...	...	...	...
" 21st ...	1	1	1	18	7	1	2	...
" 28th ...	5	...	1	18	3	1	2	...
May 5th ...	10	2	4	12	21	1	1	...
" 12th ...	8	2	14	5	10	2	...	...
" 19th ...	4	...	7	8	20	1	4	...
" 26th ...	7	...	56	7	41	1	1	...
June 2nd ...	...	...	...	...	...	...	...	...
" 9th ...	...	...	...	...	...	...	...	...
" 16th ...	2	...	16	2	6	1	3	...
" 23rd ...	5	...	26	4	12	3	1	...
" 30th ...	4	...	64	9	24	1	5	...
July 7th ...	7	...	114	6	8	...	2	...
" 14th ...	6	1	159	5	19	...	...	...
" 21st ...	2	1	83	5	3	...	3	...
" 28th ...	4	...	57	9	3	2	2	...
August 4th ...	7	...	36	...	6	...	2	...
" 11th ...	2	...	50	3	3	...	2	...
" 18th ...	...	...	1	...	...	...	...	...
" 25th ...	...	...	...	...	...	...	...	...
September 2nd ...	3	...	1	...	...	...	...	...
" 9th ...	10	...	20	...	9	1	...	...
" 16th ...	5	...	22	...	...	1	4	...
" 23rd ...	9	...	42	...	6	...	2	...
" 30th ...	8	...	31	1	10	1	...	...
October 7th ...	12	...	51	...	24	1	3	...
" 14th ...	11	2	47	...	7	1	7	...
" 21st ...	11	1	88	1	27	1	1	...
" 28th ...	7	1	26	1	18	...	2	...
November 4th ...	9	...	43	...	7	4	2	1
" 11th ...	9	2	23	1	19	1	2	...
" 18th ...	6	1	45	1	11	1	2	...
" 25th ...	10	...	21	...	13	7	4	...
December 3rd ...	7	...	30	...	3	4	2	...
" 10th ...	9	...	36	...	4	4	3	...
" 17th ...	5	2	15	...	10	3	...	...
" 24th ...	7	1	35	...	12	1	...	...
" 31st ...	1	...	...	...	...	...	...	...
TOTAL ...	259	23	1,271	277	405	58	85	2



### Schools Closed.

The Infant Departments of the following 16 schools were closed on account of Measles for the periods stated.

Halifax-road	...	...	...	...	11th to 22nd July, 1912
Green Bank	...	...	...	...	" " "
Cronkeyshaw	...	...	...	...	" " "
St. Patrick's	...	...	...	...	" " "
Spotland	...	...	...	...	19th to 29th July, 1912
Penn-street	...	...	...	...	" " "
Belfield	...	...	...	...	" " "
Brimrod	...	...	...	...	5th to 21st October, 1912
St. Edward's	...	...	...	...	25th September to 7th October, 1912
St. Alban's	...	...	...	...	21st October to 4th November, 1912
Milkstone	...	...	...	...	13th to 25th November, 1912
Parish Church	...	...	...	...	27th November to 9th December, 1912
Heybrook	...	...	...	...	" " " "
Oakenrod (Babies' Class only)	...	...	...	...	6th December, 1912, to 6th January, 1913
St. Peter's	...	...	...	...	16th December, 1912, to 6th January, 1913
Derby-street	...	...	...	...	16th December, 1912, to 6th January, 1913

### Scarlet Fever.

This disease we have always with us in manufacturing towns to a greater or lesser extent, but the epidemic of 1912 was one of those periodic outbreaks which have visited Rochdale during the last two or three decades at intervals of from seven to nine years, the last two outbreaks being those of 1906 and 1895, shown on the epidemic wave chart of Scarlet Fever in the Health Report. The present epidemic has not been so serious as the 1906 and 1895 epidemics, either from the point of view of attack incidence or case mortality, as the following particulars show :—

				No. of Cases	No. of Deaths	Percentage of Deaths
1895 Epidemic	...	...	...	846	45	5.3
1906	„	...	...	478	22	4.6
1912	„	...	...	451	9	2.0

The type of disease has been unusually mild, and has rendered the epidemic very difficult of control. In many cases the child has only been very slightly indisposed, and has been allowed to attend school until desquamation has occurred, thus spreading the disease broadcast. Again, even with the doctor in attendance, it has been impossible to diagnose many of the cases until peeling has set in; and the difficulty in diagnosis was increased in many instances owing to presence of some indefinite infection which gave a sore throat with a somewhat measly rash, but no desquamation.

45 suspected cases were followed up from the Health Department, and about half of them proved in the long run to be cases of Scarlet Fever.

Investigation showed that not infrequently the home isolation of Scarlet Fever cases was imperfectly carried out, the patients being allowed far too much freedom during convalescence. Unfortunately, it is rather difficult to bring the negligent parties to book, as the law requires proof of "wilful neglect" in this respect before convicting.

### Measles and Whooping Cough.

These two diseases are much more deadly and much more serious in their after effects than Scarlet Fever. Unfortunately, hitherto, epidemics of Measles and Whooping Cough have not yielded to the ordinary methods of prevention. From the information which has been gained under the new scheme for the school notification of infectious diseases, it may be possible to work along more definite preventive lines.

**SECTION V.****Teachers examined in 1912.****Uncertificated Teachers.**

Six lady candidates were examined during the year. All were accepted ; two subject to defective teeth being attended to and one subject to Committee's decision *re* vaccination.

**Bursary and Pupil Teacher.**

Twenty-one candidates were examined with the results indicated in the subjoined table.

AGE	Number examined		Accepted unreserv- edly		Accepted, subject to attention to :—						Total Number accepted	
					Teeth		Eyesight		Vaccination			
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
16	2	8	...	2	2	6	...	...	...	1	2	8
17	...	2	...	1	...	1	...	...	...	...	...	2
TOTAL ...	12		3		9		...		1		12	







